

**TOWARDS UNDERSTANDING THE PROCESS OF IDENTIFICATION  
WITH FICTIONAL CHARACTERS: THE INTERPLAY OF POSITIVE  
AFFECT, DEMOGRAPHIC SIMILARITY, AND PERSONALITY  
SIMILARITY**

A Thesis

Presented to the Faculty of the Graduate School  
of Cornell University

in Partial Fulfillment of the Requirements for the Degree of  
Master's of Science

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May 2008

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## **ABSTRACT**

Though identification is a construct that has been studied for over a century, surprisingly little is known about the process. Of particular interest to the fields of media and social psychology, identification is generally defined as a psychological process whereby people can vicariously experience the feelings and identity of another person. The current study aims to contribute to the understanding of identification by examining a number of components of identification that have yet to be examined in conjunction with one another. Few studies to date have examined the interactions of dispositional and situational factors that influence individuals' identification with fictional characters. In the current study, situational affect, demographic similarities, and personality similarities were manipulated using an experimental design. Generally, results indicated that readers matching a character on gender and race tended to identify more with the character than those not matching on gender and/or race. Matching on race was also associated with other concepts related to identification, such as a greater willingness to purchase items that a character endorses. Matching on extraversion was also associated with concepts related to identification, such as interest in a character and the perception of being similar to the character, but only when extraversion levels of the viewer were high. Results also indicated that when readers experienced mildly happy moods, they experienced greater identification with the character and tended to feel more transported into the narrative. These results are discussed in terms of the cognitive and affective interactions that may mediate identification and the implications for future research and use in marketing, entertainment media, and advertising.

## **BIOGRAPHICAL SKETCH**

Kimberly Wong is an M.S. /Ph.D. candidate in the Department of Communication at Cornell University. She was born in Queens, New York and grew up in Stony Brook, NY, a suburban town on Long Island. She graduated from Cornell University in May 2005, with a Bachelor's of Science with honors and distinction in Human Development. Upon finishing her undergraduate degree, she attended a Ph.D. program in Clinical Psychology at The Catholic University of America. After a year of clinical training, she realized that her true interest was in the intersection of Communication, Social Psychology, and Marketing, which led her back to Cornell for graduate school. In her free time, she enjoys painting, playing tennis and soccer, reading, running, and tutoring children.

This thesis, and my entire graduate school education, is dedicated in loving memory to my grandfather, Shia-Tin Chow. My Gung Gung, every opportunity and success I have ever experienced in my life was only made possible by you and the sacrifices you made for our family. I will eternally be grateful for your love and strength.

## **ACKNOWLEDGEMENTS**

I would like to sincerely thank my graduate committee advisor, Dr. Poppy McLeod for her endless dedication, wisdom, and mentorship. I would also like to thank the other members of my graduate committee, Dr. Mike Shapiro and Dr. Alice Isen for their continual guidance and support. I am truly lucky to have had such helpful and dedicated committee members!

I am also thankful for my friends and family, whose support through my graduate education has been immensely helpful. I would especially like to thank my mother, whose selfless and undying love carries me through each and every day.

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## **CHAPTER 1**

### **LITERATURE REVIEW**

In the entertainment industry, the process of identification is considered to be an immensely important element (Zillman & Vorderer, 2000), one that is believed to mediate audience responses and motivate people to watch certain types of television (Hoffner & Buchanan, 2005). Some researchers even contend that identification has long-term effects that extend beyond viewing (Hoffner & Buchanan, 2005), of which can include lasting attitude and behavior changes (Basil, 1996). Identification is often a mediator of media effects and can affect the tendency for people to imitate the behaviors of characters or motivate viewers purchase products endorsed by the character or actor (Basil, 1996; Konijn, Bijvank, & Bushman, 2007). Given its important effects, identification is a crucial psychological process for communication scholars, marketers, and media entertainment practitioners to understand.

The process of identification is a popularly studied phenomenon in many fields and academic disciplines. Despite its pervasiveness, the concept of identification does not have a uniform operational definition across fields. Even less consensus exists for how the process of identification operates. Originally stemming from psychoanalytic psychology (Cohen, 2001), identification is currently a topic of interest in social psychology and communication research. These various fields define identification in subtly different ways. These differences in operational definitions contribute to a general problem in understanding the process of identification, particularly in the entertainment industry. The present study examines the process of identification in entertainment media and the situational and dispositional antecedents that may lead to the phenomenon. In the sections that follow, I will review various definitions of identification, and will focus on the operational definition used by media psychologists. In addition, several studies on the correlates and elements of

identification will be discussed. These correlates include perceived similarities (both demographic and personality similarities), transportation, and wishful identification. Positive affect is a situational variable that has been demonstrated as an important variable in other cognitive processes and is introduced in the present study as a possible factor in the process of identification. The results of an experiment linking these dispositional and situational variables are also reported, and contribute to a greater understanding of the process of identification in entertainment media.

### *Definitions of Identification in Various Fields*

#### *Psychoanalytic Psychology*

In his theory of personality development, Sigmund Freud proposed that identification is a non-conscious process where individuals incorporate the values and identity of their parents into their own self-concept, beginning when they are children (Compton, 1985). According to Freud, identification begins during the Phallic Stage of development (between 4 to 5 years of age). During this stage of psychosexual development, the child experiences an Oedipus or Electra complex, where he/she develops sexual feelings toward the opposite sex parent and resolves this conflict by identifying with the same sex parent. As part of this process, the child adopts values and characteristics of his or her same sex parent and acts in ways that are similar to that particular parent. Later, the psychoanalytic psychologist Wollheim (1991) conceptualized identification more broadly as the act of imagining being someone else and behaving like this person. Wollheim proposed that identification and imitation are different process, with identification involving an internal component (identification is not merely the copying of another's behaviors, rather it involves the internalization of the values and characteristics of the identified individual). There seems to be agreement among psychoanalytic theorists that identification is important to one's adult development, and typically begins at a young age. The process of identification

continues into adult development, and is particularly important for adolescents who adopt values and identities of their family members and increasingly, their peers (Erikson, 1968). Elements of psychoanalytic definitions of identification are carried over into social psychology and communication definitions of the term. It should be noted that much of the psychoanalytic research on identification has focused on the developmental aspects of the process, emphasizing it as an important element for adult development, but framing it as a long-term process that increases only during the first part of an adult's life (Erikson, 1968). Thus, this particular definition of identification does not imply that the process can be short-lived or affected by persons in an individual's life other than parents or peers.

#### *Social Psychology and Advertising*

In the social psychology literature, identification is particularly studied under persuasion processes, and thus is highly related to the research on advertising and media effects. According to prominent social psychologists such as Bandura (1986), identification is based on one's perception that another individual is similar to themselves. According to Bandura's Social Cognitive Theory (Bandura, 1986), the identification process can be influenced by a number of factors such as gender, race, age, and physical attractiveness. The general consensus is that people tend to identify with others that they view as similar to what they are or what they want to be like (Bandura, 1986). Saliency of similarity cues can predict the degree to which viewers identify with characters and subsequently imitate behaviors displayed by the character (Bandura, 1963). While Bandura originally studied the effects of identification and aggression of children exposed to aggressive television characters, much research on celebrity effects tends to use Bandura's operational definition, which focuses on the saliency of similarity cues, and a particular amount of work has been conducted on the relationship between racial/ethnic similarity and message processing in adult viewers

(Whittler & Spira, 2002). While Bandura examined the relationship between identification and the display of aggressive behaviors in children, recent celebrity effects research examines the product evaluations or purchase intent of adult viewers exposed to a spokesmodel similar to him or herself (Whittler & Spira, 2002). Much of this research focuses on the differences between white and black viewers' responses to advertisements.

Another definition of identification that is well-known in the advertising literature is one proposed by Kelman (1961). Kelman's (1961) original theory of opinion change proposed three processes, but the advertising and celebrity effects research has concentrated mostly on distinguishing identification and internalization. Kelman (1961) defines identification as being separate from similar, yet distinct, processes called internalization and compliance. Identification is defined as the process of establishing or maintaining the identity associated with another person, whereas internalization is the acceptance of influence associated with the individual's own belief and value system (Biswas, Biswas, & Das, 2006; Kelman, 1961). Kelman asserted that identification serves as an important source for individual self-definition (Kelman, 2006). Kelman (1961) also asserted that people strive to be as similar as possible to the identified individual and that identification can continue to occur even though exposure is limited or short-lived. Advertising in general tends to emphasize the similarity component of identification with a focus on physical characteristics, given televised advertising's reliance on visual effects.

As previously mentioned, much of the research on identification in advertising has focused on physical similarities, and one particularly popular dimension has been racial/ethnic similarities. Specifically, several studies have found that White adults endorse similar purchase intention ratings for advertisements featuring either Black or White spokespersons (e.g., Bush, Hair, & Solomon, 1979; Schlinger & Plummer,

1972; Solomon, Bush, & Hair, 1976; Szybillo & Jacoby, 1974; White & Harkins, 1994; Whittler, 1989). Thus, it seems that for White individuals, racial similarity may not serve as a strong factor for identification. Fewer studies examine the responses of Black viewers to White and Black spokespeople, but generally these studies find that Blacks with stronger ties to Black culture give more positive product and advertisement evaluations if the spokesperson matched their race (Whittler, 1989; Whittler & DiMeo, 1991; Whittler & Spira, 2002). Thus, for Black individuals, the strength of one's cultural identification may serve as a mediator of identification and the behavioral consequences that result from the process (Whittler & Spira, 2002). Even fewer studies examine other ethnic/racial groups' identification with media characters and spokespeople (Whittler & Spira, 2002), but results may parallel those stemming from research on Black viewers, such that individuals considered minorities may identify more with characters matching their race, particularly if ethnic identification is high.

In sum, these various definitions of identification used by social psychologists and advertising researchers emphasize that identification is based on perceptions of similarity. In contrast to the definitions of identification from psychoanalytic psychology, the social psychology and advertising definitions of identification contend that the process can occur over a short period of time with people that the individual may not actually know or interact with. While many of these studies examine the attitudinal and behavioral consequences of identification, as it highly relates to consumer behavior, these studies do not specify the particular antecedents that lead to identification (other than similarity; Basil, 1996).

#### *Mass Communication and Media Studies*

Interestingly enough, while advertising is considered communication through mass media, the definition of identification differs between mass communication that

is focused on advertising and mass communication that is focused on entertainment. According to media psychology theorists, such as Cohen (2001) and Zillman (1995), identification is emphasized as an imaginative process in which an individual adopts a character's point of view and develops an empathic understanding of his or her plight, perspective, motivations, and goals. While similarity is considered to be an important antecedent to the process, the mass communication definition of identification also notes that identification has other sub-components and related constructs. In addition, the defining component of identification is that the viewer engages in an intense imaginative process characterized by empathic understanding of the character (Cohen, 2001). More recent definitions of identification from Cohen (2006) define identification as a sensation felt intermittingly during message processing, whereby audience members imagine being that character and replace their personal identity and role as audience members with the identity and role of the character within the text or film. That is, after someone identifies with a character, he or she may be aware of having been deeply absorbed in the text and be able to assess the degree to which he or she empathized with the character as well as able to understand and share the character's feelings, goals, and perspective. According to Cohen (2001), the process of identification intensifies a viewing experience. Identification is one of many ways in which viewers respond to characters and is considered to be a significant mediator of audience effects, such as enjoyment of the medium (de Wied, Zillman, & Ordman, 1995) and modeling behavior (Bandura, 1963; Basil, 1996; Konijn, Bijvank, & Bushman, 2007). Cohen's (2001) definition of identification is composed of both affective (empathy) and cognitive (understanding goals and motives, perspective-taking) components. Whether or not identification occurs depends on the viewer's own perspectives, characteristics, values, and interests as individuals (Cohen, 2006). For example, the degree of relevance of a situation or issue that a character encounters



can determine whether or not identification occurs: this was indeed the case for a study that found adult women identified with characters from the movie *Thelma & Louise* due to the relevance of female bonding and female gender identity (Cohen, 2006; Cooper, 1999).

Other studies also illustrate the importance of identification as a mediator of media effects: Basil (1996) found that identification with celebrities promoting health messages led to an increased adoption of health behaviors the celebrities were promoting. Moreover, this increase in attitudinal and behavioral change persisted even up to a year after the initial exposure to the health message (Basil, 1996). In addition, Huesman, Lagerspatz, and Eron (1984) found that children who identified with aggressive characters were more likely to learn aggressive behaviors. Thus, individuals' identification with characters in entertainment media can lead to significant behavioral consequences, for children and adults, alike.

As previously discussed, identification can be affected by individual differences between the viewers, but other media researchers also examine the relationship between identification and situational variables stemming from the production/format of the message. Two particular aspects of production that may affect a viewer's identification with a television character are camera angle (Benjamin, 1969) and length of exposure to the character (Rubin & McHugh, 1987). Additionally, attractiveness of the character may also serve as a situational variable that increases identification levels with the character (Kahle & Homer, 1985).

#### *Related Concepts and Constructs*

Identification is also similar to, yet distinct from several other concepts in media studies literature. Mass communication theorists frequently link the process of identification with the phenomenon of transportation. According to transportation theory, audience members can become so deeply absorbed in the narrative and focused

on the events it portrays, that they feel as if they have been transported from their location as viewers into the narrative (Gerrig, 1993). Although the causal direction of the link between the two processes has yet to be empirically tested, several researchers posit that it is reasonable to see identification as a result of becoming at least initially transported by the text (Gerrig, 1993; Kim & Rubin, 1997). While some studies have shown that identification and transportation are positively related, the direction of causality has yet to be determined (Gerrig, 1993). Although the debate regarding the nature of the relationship between transportation and identification continues, it has been empirically established that transportation itself is associated with viewer belief changes, higher positive evaluations of story protagonists, and higher levels of enjoyment (Green & Brock, 2000, 2002; Green, Brock, & Kaufman, 2004).

Identification is also related to parasocial relationships with fictional characters (Basil, 1996). The concept of parasocial interactions stems from studies of interpersonal communication (Cohen, 2001). A parasocial interaction is a symbolic interaction between a viewer and a character whereby the viewer feels as if he or she knows the fictional character or celebrity (Bente & Feist, 2000). It is an intimate friend-like relationship that the viewer develops with a character (Rubin & McHugh, 1987). The longer an individual maintains an ongoing relationship with a fictional character and develops a sense of intimacy and familiarity, the more likely it is that this individual will identify with the character (Cohen, 2006). However, it should be noted that theorists propose identification and development of parasocial interaction are different processes (Giles, 2002). This assertion relies on the assumption that when viewers develop parasocial interactions, they are able to maintain self-identity while also developing an attachment to their relationships with fictional characters (Cohen, 2001). Based on the operational definitions of both terms, it can be asserted that the process of identification is different than parasocial interaction because

identification lacks the interaction component and involves an altered state of awareness for the viewer (Cohen, 2001). Parasocial interactions may serve a function of creating companionship for an individual as well as helping define issues of self-definition (Auter & Palmgreen, 2000). According to Auter and Palmgreen (2000), identification, along with interest, group identification, and favorite character problem solving abilities, are all sub-dimensions of parasocial interaction. Thus it seems that there is a certain level of disagreement between Giles (2002) and Auter and Palmgreen (2000) regarding whether identification and parasocial interaction are distinct processes or sub-components of one another.

Identification is also related to wishful identification, in that the two processes are separate components of a complex process (Hoffner & Buchanan, 2005). Identification refers to a phenomenon that occurs while viewing whereas wishful identification refers to a long-term consequence of media exposure that entails changing of attitudes, aspirations or values to match those of a character (Hoffner & Buchanan, 2005). Wishful identification occurs when a viewer wants to be like a character or desires and admires certain personality traits or situational factors (Cohen, 2001). It often extends beyond the viewing situation (Hoffner & Buchanan, 2005). Much of the research on wishful identification has examined the process using children or teenagers, but results are often generalized to the adult population as well (Feilitzen, & Linne, 1975; Hoffner & Buchanan, 2005; Konijn, Bijvank, & Bushman, 2007).

The mass communication definition of identification (e.g. Cohen, 2006) is the operational definition that will be used for the current study, since the aim is to explore the process of identification in narrative media that focuses on entertainment. In addition, this definition specifies several related antecedents and correlates of the process while also asserting that identification can occur with limited exposure time,

with individuals or characters that the viewer does not have familiarity with. Identification will be defined as an imaginative process where the viewer has a chance to vicariously experience the role and identity of a fictional character, and thus share the character's perspective and feelings (Cohen, 2006). Furthermore, while the current study uses text narratives to test hypotheses, situational variables (unrelated to production aspects of the medium) that may interact with the antecedents of identification (i.e. similarity, transportation) will also be examined.

### *Perceived Similarity and Identification*

#### *Physical and Demographic Characteristics*

A number of physical and demographic characteristics have been studied as characteristics that affect individuals' identification levels. Such characteristics include age, social class, ethnicity, and gender.

Several studies have found that children and adults generally tend to identify with characters that possess similar demographic characteristics such as gender, age, ethnicity, and social class (e.g. Cohen, 2006; Green, 1999; Maccoby & Wilson, 1957). Studies on children's identification with fictional characters have found that children tend to identify with child characters and those similar to themselves (Feilitzen & Linne, 1975). Similar results were found with age similarities in teen viewers (Cohen, 1999). Maccoby and Wilson (1957) also found that young viewers identified more with same-sex characters and remembered more information about same-sex characters. Ethnic/racial similarity is also a variable that can lead to different levels of identification: in fact, this finding is one that prompts many advertisers to use actors with certain ethnic and racial backgrounds when they are trying to target a minority audience (Green, 1999).

However, not all studies on identification and demographic features have been consistent. With some minority groups, identification may be more pronounced when

a viewer watches a spokesperson of similar race if the viewer has strong ties to his or her racial/ethnic background culture (Whittler & Spira, 2002). However, some studies also find that racial similarity does not lead to differences in consumer evaluations of products or advertisements (White & Harkins, 1994). Thus, it seems that the degree of ethnic assimilation may be a mediator that can explain these contrasting findings.

While some studies suggested that viewers tend to identify with characters similar in demographic variables (e.g. Maccoby & Wilson, 1957), other studies find that perceived similarity in terms of attitudes and attributes seems to outweigh demographic similarity (such as physical characteristics as gender, race, and age) as a determinant of identification (Cohen, 2006). For example, some studies, that ask participants to name a favorite character (presumably one they identify with), find that female children often name male characters (Eyal & Rubin, 2003; Hoffner, 1996). Some studies on adults also show similar findings: Gleich (1997) found that one-fifth of German men chose a female favorite character on TV and a third of women chose a male favorite character. Another study found that working class adult women identified more with upper class characters on the show *Dynasty* than did middle class women (Press, 1990). Cohen (2006) asserts that these discrepancies suggest that identification based on perceived similarities in attitudes or wishful identification may serve as crucial factors in the overall process of identification rather than demographic similarities.

#### *Personality Characteristics*

While few studies have directly addressed the relationship between perceived similarity of personality characteristics and identification, several studies have examined the character traits of fictional characters that predict viewers' liking and wishful identification. Hoffner (1996) found that male characters were liked by young boys and girls alike for their intelligence, and young girls reported sense of humor as

an important characteristic in wishful identification with male characters. In addition, female characters were found to be judged based on physical attractiveness by children of both genders.

Over the last century, there has been a growing interest in models of personality development. The Five Factor Model (FFM: Costa & McCrae, 1985), also termed “The Big Five,” asserts that most individuals can be characterized along five dimensions of traits: Openness to new experience (captures such concepts as originality, wit, and artistic ability), Conscientiousness (lack of impulsivity or ability to be organized and responsible), Extraversion (sociability, dominance, and enthusiasm), Agreeableness (friendliness), and Neuroticism (emotional stability). A growing amount of empirical literature suggests that the FFM is applicable across many cultures and languages (Costa & McCrae, 1985; George et al., 1998; McCrae, 1989).

While media research has examined such personality traits as intelligence and sense of humor, there is a dearth of research on how the Big Five personality factors relate to perceived similarity and identification with fictional characters. Some studies have been conducted on personality differences and reception of affect-related media (shows or programs that present private stories of non-prominent people to mass audiences, typically considered talk shows; Bente & Feist, 2000). These studies have found that viewers’ extraversion predicts their attitudes towards television sequences that have positive hedonistic tone, such that subjects with high extraversion report the highest levels of pleasure gained from sequences that contain pleasurable material (Bente & Feist, 2000). Studies also suggest that neurotics seek autonomic arousal when viewing television, such that people with high scores on neuroticism scales seem to enjoy shows that produce high levels of excitement (Bente & Feist, 2000). Thus these results seem to suggest that individuals enjoy programs that are congruent with

their personality traits. In addition, studies on political identification and candidate preferences report a personality congruency, such that liberal candidates describe themselves and the candidates they prefer as higher on openness and agreeableness, whereas conservative candidates describe themselves and the candidates they support as more extraverted and conscientious (Ozer & Benet-Martinez, 2006). While these studies demonstrate that liking and levels of pleasure can be predicted by perceived personality similarity, this has yet to be examined experimentally in identification research. Based on the previous literature review, particularly studies that suggest identification is linked with similarity of attitudes and attributes (e.g. Hoffner & Buchanan, 2005), the following hypotheses are generated:

*Hypothesis 1a: Individuals will identify with fictional characters who have similar Big Five personality dimensions to themselves.*

*Hypothesis 1b: Individuals will identify with fictional characters who have similar demographic characteristics to themselves.*

#### *Other Factors Affecting Identification and Perceived Similarity*

Given that identification is composed of both cognitive and affective components, it is likely that the dispositional characteristics of the viewer (i.e. demographics and personality) interact with situational factors that precede the introduction to the encounter with fictional characters. One such situational factor is positive affect. Demonstrated to be positively related to cognitive flexibility (Isen, 1999; Isen et al., 1987; Isen, Johnson, Mertz, & Robinson, 1985), positive affect may serve as a particular situational variable, which either on its own right or jointly with the effects of dispositional variables may increase levels of identification.

### *Positive Affect*

Positive affect is a well-studied phenomenon that is linked with a number of cognitive and social processes, including increases in intrinsic motivation (Isen & Reeve, 2005), helping behavior (Isen, 1970; Isen & Simmonds, 1978; Shaffer & Graziano, 1983), creativity (Isen et al., 1987), as well as improvements in decision-making (Estrada, Isen, & Young, 1997) and conflict resolution (Carnevale & Isen, 1986). According to Isen (1984), “affect” is a general term for a variety of feeling states that include mood and emotion. Affect as a state consists of a temporary or momentary feeling that may arise from a specific stimulus or a variety of stimuli (Isen, 1984). Positive affect generally refers to “happy feelings” (Isen, 1999).

*Positive Affect and Cognitive Flexibility.* Several lines of research converge to support the notion that induced positive affect, even mild states of positive affect, can significantly improve creativity and cognitive flexibility (Isen, 1999; Isen et al., 1987; Isen, Johnson, Mertz, & Robinson, 1985). Not only does induced positive affect lead to more novel solutions to standard creativity problems (Isen & Daubman, 1984), but it is also associated with increased generation of unusual word associations (Isen, Johnson, Mertz, & Robinson, 1985) and generation of better solutions in difficult interpersonal situations (Carnevale & Isen, 1986). More specifically, in problems of creativity and tasks that require divergent thinking or overcoming functional fixedness, such as the Duncker (1945) candle task (a problem-solving task that involves recognizing an unconventional use for a small cardboard box), individuals in whom positive affect was induced through a happy film or through the receipt of a small gift of candy were much more likely to solve the problem than those in a neutral-affect condition (Isen et al., 1987). The Isen et al. (1987) paper also found that in another task requiring creative ingenuity, the Mednicks’ (Mednick, Mednick, & Mednick, 1964) Remote Associates Test, participants in the positive affect condition



significantly outperformed neutral-affect or negative-affect participants. Specifically, the Remote Associates Test lists a series of three related words and participants are asked to generate a fourth related word. Individuals in the positive affect condition answered more moderately difficult questions correctly than individuals in control conditions. Furthermore, these researchers found that participants who were asked to exercise (and thus were aroused but not in any particular affective state) and negative affect participants did not perform as well as positive affect participants in these creativity problem-solving tasks. The series of experiments conducted by Isen et al. (1987) thus converge to exemplify positive affect's facilitative role in creative problem solving.

How does positive affect lead to improved creativity? Several suggestions have been hypothesized. One line of work, which includes findings such as those provided by Isen et al. (1987) as well as studies exhibiting that positive affect leads to greater perceptions of interrelatedness among items belonging to different object or social categories (Isen & Daubman, 1984; Isen, Paula, & Cantor, 1992), suggest that positive affect may cue positive material in association networks and thus lead to a greater number of available associations. Positive material in memory is diverse and more interconnected than negative or neutral material, and positive feelings may lead to an ease of retrieval for this complex system of interconnected material (Isen, 1999). As noted by Isen et al. (1987), a number of creativity researchers have suggested that creativity entails the combination of items that are remotely related (Mednick, 1962), and positive affect seems to facilitate this very element of creativity through its effects on cognitive organization and integration.

An alternative mechanism through which positive affect can improve creativity is through its effects on cognitive flexibility. Positive affect, induced through a variety of induction techniques, increases cognitive flexibility and the ability to flexibly

consider all available evidence (Isen, 1999). Thus it is highly possible that positive affect may be related to identification with media characters by increasing the degree to which individuals can flexibly view characters as having similar characteristics. The link between positive affect and other manifestations of cognitive flexibility has been established in several studies. In a study on consumer decision-making, individuals in the positive affect condition exhibited increased variety-seeking among safe and enjoyable products relative to control groups (Kahn & Isen, 1993). Furthermore, positive affect individuals in this study demonstrated a greater willingness to classify atypical items into predefined product categories, a finding that again supports the notion that positive affect increases flexible categorization (Kahn & Isen, 1999). Another study that demonstrates the link between careful elaboration, cognitive flexibility, and positive affect examined decision-making among practicing physicians (Estrada, Isen, & Young, 1997). In this study, some physicians received a positive affect induction (e.g. small gift bag of candy) and others received no affect induction or were asked to read a statement on the practice of medicine. Physicians were then asked to solve a fictional case study. Physicians given the candy considered the correct diagnosis significantly earlier than the other physicians. Furthermore, the physicians in the positive affect condition also considered more alternative diagnoses, exhibiting a decreased anchoring effect (an inflexibility or cognitive distortion one can experience when thinking). In a separate domain of research, more specifically, negotiation, positive affect led to a greater number of generated integrative solutions and more consideration of alternatives (Carnevale & Isen, 1986). Taken together, these studies indicate that positive affect leads to more efficient and wider consideration of alternatives, or cognitive flexibility. This, in turn, can lead to an increased probability that diverse elements/concepts are linked together.

Another, yet similar, model for positive affect and cognitive flexibility is proposed by Fredrickson (1998, 2001). Also arguing that positive affect leads to cognitive improvements and increased creativity, Fredrickson's broaden-and-build model of positive emotions posits that positive emotions, such as happiness and joy, broaden an individual's repertoire of cognitions and actions. Fredrickson asserts that positive emotions broaden both breadth of attention and breadth of cognition. The former refers to an increase in the number of cognitive elements available for association, whereas the latter refers to an increase in the scope with which those elements are seen as related to the problem. Thus, positive emotion can lead to novel and creative paths of thought.

Highly related to the notion that there may be a relationship between positive affect and identification, a particular application of the cognitive flexibility and positive affect research has been in social categorization and intergroup relations. A number of studies have found that positive affect leads to greater perceptions of interrelatedness among items belonging to different object or social categories (Isen & Daubman, 1984; Isen, Paula, & Cantor, 1992). If a broader range of classification due to positive affect can be demonstrated with groups of objects, then theoretically, a similar process of cognitive flexibility may be involved when groups of people are considered. Dovidio, Gaertner, Isen, and Lowrance (1995) found that positive affect led to the formation of inclusive group formations: when in-groups were told that a potential new group would merge with their own, groups that received the affect manipulation of candy bars, anticipated that their potential newly formed group would feel more like one group rather than two. In addition, positive affect was also associated with more positive evaluations of both in-group and out-group members.

Taken together, these studies offer convincing support for positive affect's facilitative role in increasing creativity and cognitive flexibility. Positive affect has

been a well-studied phenomenon in many fields, yet to date, no studies have directly examined the relationship between positive affect and psychological identification. Given that positive affect leads to an increased ability for one to be cognitively flexible, it is also possible that positive affect may increase levels of perceived similarity when a viewer encounters a fictional character. Similar to how positive affect can stimulate superordinate group categorizations in intergroup relations (Dovidio et al., 1995), positive affect may help people see ways in which they are similar to fictional characters, regardless of actual similarity. As previous research has found, perceived similarity is related to identification and transportation (Cohen, 2006; Eyal & Rubin, 2003; Hoffner, 1996). Thus the following hypotheses are formed:

*Hypothesis 2a: Individuals experiencing mild positive affect will experience higher identification scores than participants in neutral affect conditions*

*Hypothesis 2b: Individuals experiencing mild positive affect will have higher perceived similarity scores than participants in neutral affect conditions*

The current study contributes to the body of literature on identification in several ways. First, the study aims to examine the relative importance of demographic similarity and personality similarities in the process of identification. Previous studies have not directly assessed the influence of viewers' perceived similarity of Five Factor Model (FFM) traits with characters. While this current study examines psychological identification through narratives, results may be extended to entertainment television and movie characters as well. Narratives are commonly used in media research as proxies of or pilot studies for televised media (Reeves & Nass, 1996). Secondly, this study examines the possible interactions of situational variables, such as affect, and dispositional variables, such as personality and demographics, in the process of identification.

## CHAPTER 2

### METHODS

#### *Participants*

A total of one hundred undergraduate students (59 females, 41 males) from a large Northeastern university participated in this study. Thirteen individuals were removed from the final data analysis due to incomplete measures ( $n=8$ ) or having outlier observations on dependent measures ( $n=5$ ). The 5 participants who were not included in the analysis scored outside the 75<sup>th</sup> percentile around the mean for the dependent measures on the items in the identification and perceived similarity factors. The total number of female participants was 57 and the total number of male participants was 35. Participants received extra credit for one of several courses in the Department of Communication. The average age of participants was 19.99 years ( $SD=1.04$ , range=18-23 years). Of the total sample, 72.6% identified themselves as White/Caucasian, 5.3% as Black/African American, 18.9% as Asian/Pacific Islander, and 3.2% as Other/Mixed race. Approximately 4.2% of the total sample also identified themselves as Hispanic/Latino.

#### *Design*

A mixed repeated-measures design was utilized for this study, where race of the character and affect condition were treated as between-subject variables and gender and extraversion level of the character were within-subjects variables. Participants were assigned randomly to one of eight conditions. Half of the conditions involved manipulations of affect (positive and neutral); the other half involved differences in racial/ethnic images of the protagonists in the narratives. Narratives were also counterbalanced to control for order effects.

### *Affect Induction Techniques*

In experimental studies on affect, participants are exposed to a variety of situational conditions intended to manipulate their moods in a mild manner. Some researchers use a recall task, whereby participants are asked to write about happy or sad memories for a fixed amount of time (Albarracin & Kumkale, 2003; Schwarz & Clore, 1983). However techniques such as these that rely on self-report manipulation checks are subject to errors such as experimenter demand or may not be valid since often people are unaware or unwilling to report their true feelings (Isen & Erez, 2007). Triangulation on the construct of affect, whereby affect is induced in several ways while investigating the same dependent variable, is a reliable and theoretically valid approach to induce affect and check for the intended manipulation (Isen, 1999; Isen & Erez, 2007). Such induction techniques include giving participants a small gift, such as a bag of candy, showing participants 5 minutes of a humorous film, or playing pleasant music (Isen, 1999). The affect induction used in this study entailed giving participants a bag of hard candies under the guise of a ‘thank you’ gift for participation.

### *Narratives*

Four sets of four storylines were developed for the purposes of this study. Only two sets were eventually used as the narratives for the study. To manipulate personality similarity, extraversion was chosen as the main personality trait for this study. The storylines varied in the levels of extraversion displayed by the main character. The two story sets that ultimately were not used contained unintended significant differences in personality dimensions not of interest to the main hypotheses (i.e. agreeableness, conscientiousness). Of the stories ultimately used for this study, one storyline centered on a young man named Dan, who finishes his Monday workday early and does not know what other tasks his boss would like him to complete. The

other protagonist in the second storyline was a young female named Heather, who took a walk and encountered a disliked acquaintance. After a thorough literature review of common characteristics and adjectives pertaining to high and low extraversion (Kiesler, 1983), one version of the male story and one version of the female story were developed to have the character display highly extroverted behaviors. Another version of the male story and another version of the female story contained characters that displayed low extraversion characteristics. See Appendix A for copies of the stories used for this study. All four stories were pre-tested from Spring 2007 to Winter 2007 with 80 undergraduate students drawn from the same population as the participants in the main study. Like participants for the main study, the pre-test students also received course extra credit in exchange for their participation.

Participants in the pre-test read a set of each story and completed an observer form of the NEO Five Factor Inventory (NEO-FFI; Costa & McCrae, 1991). The NEO-FFI is a short form version of a widely known and generalized model of personality (NEO Personality Inventory; Costa & McCrae, 1985). The observer form is a version of the original 60-item NEO-FFI self-form, and asks participants to indicate on a 1 to 5 Likert scale, their agreement with items regarding another's observed personality traits. This measure was found to be reliable in Hancock and Durham (2001), with the following reliabilities for each of the 5 personality subscales: Extraversion,  $\alpha=.83$ , Neuroticism,  $\alpha=.71$ , Agreeableness,  $\alpha=.79$ , Openness,  $\alpha=.74$ , and Conscientiousness,  $\alpha=.88$ .

Paired samples t-tests revealed significant differences in perceived extraversion between the intended high extraversion male character and the low extraversion male character ( $t(21)=6.681, p < .01$ ). Paired samples t-tests also revealed significant differences in perceived extraversion between the intended high

extraversion female character and the low extraversion female character ( $t(18) = 4.123, p < .01$ ).

### *Images*

Eight images of female and male characters were paired with the four stories corresponding to their gender. These images were obtained from the Micro Expression Training Tool CD, developed by Paul Ekman (2000). Half of the pictures contained Asian or Pacific Islanders and half of the pictures contained Caucasians. While much research has examined how Whites and Blacks respond to spokespeople with similar race (e.g. Whittler, 1989; Whittler & DiMeo, 1991; Whittler & Spira, 2002), less research has examined other racial groups, such as Asians. Given that the demographic composition of the college population at the University where the study took place is mostly White and Asian, these were the two racial groups represented in the study's narratives. No significant differences were predicted in whether one racial group would be more responsive to similarities than the other, but rather the images were used to naturally generate the racial match/mismatch conditions.

### *Extraversion Measures*

Although psychologists and researchers are still debating about the nature of the Big Five personality dimensions, there has been a general consensus that at least two out of the five personality dimensions are robust and seemingly universal (Uziel, 2006). According to Uziel (2006) these two dimensions are extraversion and neuroticism. Other studies and researchers contend that extraversion and agreeableness are the two dimensions that are universal, particularly when it comes to interpersonal relationships and interactions (McCrae & Costa, 1989; McCrae & John, 1992; Reeves, 1996). Extraversion is common to both sets of proposed universal personality dimensions and was thus chosen to be the main personality dimension examined in this study. Fictional protagonists in the narratives varied in levels of



extraversion, and as previously discussed, pre-tests indicated that low extraversion characters and high extraversion characters were perceived to have significantly different extraversion attributes.

The NEO Five Factor Inventory (Costa & McCrae, 1991) is a short form version of a widely known and generalized model of personality (NEO Personality Inventory; Costa & McCrae, 1985). Likert-type format of these items has previously demonstrated strong psychometric properties ( $\alpha=.83$  for extraversion scale; Costa & McCrae, 1991). A 60-item scale, 12 items are devoted to each of the five personality dimensions. Respondents indicate one of 5 possible responses to statements: strongly disagree, disagree, neutral, agree, and strongly agree.

#### *Identification Measures*

An 18-item Likert scale (see Appendix B) was developed based on suggestions from Cohen (2001) to measure identification in this study. Participants circled a number between 1 and 5 in accordance with their level of agreement with statements related to identification, similarity, interest, and transportation (1 = “strongly disagree”; 2 = “disagree”; 3 = “neutral”; 4 = “agree”; 5 = “strongly agree”).

A principal components factor analysis (with varimax rotation) revealed six factors with eigenvalues over 1. Together, these six factors can explain about 74.85% of the total variance in the scale items. For factor loadings, please see Appendix C. Each factor was examined as a separate scale and scale reliabilities in the present administration were high: factor 1 (labeled wishful identification, 4 items)  $\alpha = .87$ , factor 2 (labeled identification, 5 items)  $\alpha = .79$ , factor 3 (labeled interest, 3 items)  $\alpha = .87$ , factor 4 (labeled similarity, 3 items)  $\alpha = .75$ , factor 5 (labeled transportation, 2 items)  $\alpha = .61$ , and factor 6 (labeled wishful achievement, 1 item) did not undergo reliability analysis since it consisted of a single item.

All items that composed the factors were combined and scores were averaged for each participant across items, to form average scores on each factor. The maximum possible score for each factor is a 5 and the minimum is 1. The results from the factor analysis are presented below, in Table 1, and correlation matrix of the six main factors is presented in Appendix C.

Table 1. Outputs from Factor Analysis

Component	Total Variance Explained								
	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.866	29.329	29.329	5.866	29.329	29.329	3.977	19.885	19.885
2	3.784	18.919	48.248	3.784	18.919	48.248	3.391	16.953	36.838
3	1.941	9.705	57.953	1.941	9.705	57.953	2.774	13.869	50.707
4	1.262	6.312	64.265	1.262	6.312	64.265	1.941	9.707	60.414
5	1.094	5.469	69.733	1.094	5.469	69.733	1.630	8.152	68.565
6	1.022	5.112	74.846	1.022	5.112	74.846	1.256	6.280	74.846
7	.814	4.072	78.918						
8	.704	3.519	82.437						
9	.512	2.562	85.000						
10	.499	2.495	87.494						
11	.424	2.118	89.613						
12	.392	1.962	91.575						
13	.360	1.798	93.373						
14	.284	1.418	94.791						
15	.252	1.260	96.051						
16	.206	1.032	97.084						
17	.185	.927	98.011						
18	.171	.856	98.867						
19	.137	.687	99.554						
20	.089	.446	100.000						

Extraction Method: Principal Component Analysis.

Table 1. Outputs from Factor Analysis (Continued)

Rotated Component Matrix <sup>a</sup>						
	Component					
	1	2	3	4	5	6
Identq1diff	-.024	.239	.174	.276	.757	-.155
Identq2diff	.051	.199	.050	-.107	.815	.229
Identq3diff	-.077	.630	-.024	.143	.289	-.050
Identq4diff	-.076	.716	-.123	.246	-.169	-.232
Identq5diff	-.054	.214	-.146	.814	.005	.016
Identq6diff	.122	.764	.023	.061	.039	.151
Identq7diff	-.140	.669	.120	.220	.288	.206
Identq8diff	-.083	.724	.150	.080	.240	.090
Identq9diff	.050	.042	.140	.106	.086	.906
Identq10diff	.557	.382	.190	.127	-.208	.350
Identq11diff	.890	.000	.033	-.063	-.015	.016
Identq12diff	.892	-.019	.188	.020	.064	.042
Identq13diff	.927	-.101	.054	.140	.025	.044
Identq14diff	.345	.064	.825	-.094	-.006	-.042
Identq15diff	.181	-.004	.839	.231	.231	.085
Identq16diff	.006	.105	.892	.035	.029	.176
Identq17diff	.231	.331	.349	.703	.144	.091
Identq18diff	.322	.618	.337	.317	.050	-.118
Actualselfdiff	.208	.344	.342	.580	.076	.195
Idealselfdiff	.898	-.016	.198	.079	-.002	-.052

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

*Factor 1: Wishful Identification.* Factor 1 most closely resembles what Hoffner and Buchanan (2005) define as wishful identification. This factor is comprised of the following five scale items:

<b><u>Factor 1: Wishful Identification</u></b>
Item 10: When Character X succeeded I felt joy, but when he failed, I was sad.
Item 11: I wish I could be more like Character X
Item 12: I'd like to do the kinds of things that Character X does in the story.
Item 13: Character X is the sort of person I want to be like myself.
Ideal Self Question: Now think about the attributes you would like ideally to possess. Please tell me how similar these attributes you would like ideally to have to the attributes of the character in the story you just read.

*Factor 2: Identification.* Factor 2 represents the factor that most closely resembles the operational definition of identification used for this study. It is comprised of the following five scale items:

<b><u>Factor 2: Identification</u></b>
Item 3: I was able to understand the events in the story in a manner similar to that in which Character X understood them.
Item 4: I think I have a good understanding of Character X
Item 6: While reading the story I could feel the emotions Character X portrayed.
Item 7: While reading the story, I felt I could really get inside Character X's head.
Item 8: At key moments in the story, I felt I knew exactly what Character X was going through

*Factor 3: Interest.* Factor 3 is composed of three scale items which query the reader's interest in the character. The factor is composed of the following items:

<b><u>Factor 3: Interest</u></b>
Item 14: I found Character X to be interesting.
Item 15: I'd be interested in reading more stories about Character X.
Item 16: I'd be interested in seeing a television episode based off of Character X.

*Factor 4: Similarity.* Three items from the administered scale were grouped together into factor 4. The highest possible average score for the similarity factor is 5 and the lowest is 1. This following scale items comprise factor 4:

<b><u>Factor 4: Similarity</u></b>
Item 5: I tend to understand the reasons why character X does what he or she does.
Item 17: Character X and I are alike.
Actual Self Question: Now think about the attributes you possess. How similar are the attributes you actually possess to the attributes of the character in the story you just read?

*Factor 5: Transportation.* The two items from the scale which comprise factor 5 most closely resemble the concept of transportation, which in previous studies has been shown to be highly correlated with identification (Gerrig, 1993; Green & Brock, 2000, 2002; Green, Brock, & Kaufman, 2004; Kim & Rubin, 1997). Transportation is the concept that viewers or readers can become so deeply absorbed in the narrative and focused on the events it portrays, that they feel as if they have been transported from their location as viewers into the narrative (Gerrig, 1993). The two scale items are the following:

<b><u>Factor 5: Transportation</u></b>
Item 1: While reading this story, I felt as if I was part of the action.
Item 2: While reading this story, I forgot myself and was fully absorbed.

*Factor 6: Wish for Achievement.* The last factor to result from the factor analysis only contained one item.

<b><u>Factor 6: Wish for Achievement</u></b>
Item 9: While reading the story, I wanted character X to succeed in achieving his or her goals

*Willingness to Purchase.* Item 18 from the scale was developed for the purposes of this study. It intended to measure the reader's willingness to purchase products or items that the character may like. When included in the factor analysis, Item 18 falls into Factor 2, identification. However, this item was examined separately since the construct is inherently different than the factor comprising identification. The item has a more direct behavioral implication than any of the items for Factor 2 and also has several marketing implications for entertainment and advertising media (Cornwell & Coote, 2005). Thus, the item was subject to an independent analysis.

<b><u>Item 18: Willingness to Purchase</u></b>
I might be interested in buying things that Character X likes

*Perceived Actual and Ideal Similarity.* Perceived actual similarity was assessed using 2 items. Participants were asked to indicate on a 1 to 5 Likert scale the degree to which they felt they were actually similar to the character (1 = “not at all similar”; 5= “very similar”). An open ended question followed and asked participants to list the ways in which they are actually similar to the character.

Perceived ideal similarity was also assessed using two items. Participants were also asked to circle on a 1 to 5 Likert scale the degree to which the character possesses attributes that they do not have but would like to possess. This item was followed by an open ended question asking participants to list the ways in which the character possesses characteristics that they would like to possess as well.

*Open-Ended Questions: Perceived Actual and Ideal Similarity.* Two items in the questionnaire asked readers to write about the ways in which they are similar to the character and to write about the qualities of the character that they may also like to possess (termed ideal similarity). These open-ended responses were coded for the number of ideas generated. The directions given to the coders were identical in both the actual and ideal similarity questions. Inter-rater reliability for this coding scheme was moderate,  $\kappa=.68$ . The total amount of letters/characters written for each response was also counted for analysis, and used as an indicator of the richness and level of detail that participants dedicated to their descriptions of actual and ideal similarity.

### *Procedure*

Participants completed the NEO-FFI personality inventory (Costa & McCrae, 1991) upon their arrival at the research laboratory. Participants in the positive affect condition were given bags of candy, under the cover story that the candy was an additional ‘thank you’ gift for participation. Participants in the neutral affect condition

did not received bags of candy upon their arrival to the laboratory. As a manipulation check for the intended affective state, participants completed the “H-test,” which queries the individual to list 5 words beginning with the letter H. After the mood manipulation check, participants were asked to read one of two stories, presented along with a photograph of the fictional character, and complete the identification measure. This procedure was followed again for a second story. Lastly, the demographic questionnaire was completed and participants were debriefed. The total time of participation for each individual lasted between 25 to 30 minutes. The study took place between January 2008 and March 2008.

## CHAPTER 3

### RESULTS

#### *Manipulation Checks*

The “H-test” was used to test for the intended affect manipulation. This particular measure asks individuals to list five words that begin or are associated with the letter “H”. Previous studies have found that the positivity of associations to neutral stimuli (words and a letter of the alphabet) as well as the unusualness of associations to neutral stimuli (words and a letter of the alphabet) are influenced by positive affect and can also serve as implicit measures of induced positive affect (e.g., Estrada, Isen, & Young, 1997; Isen et al., 1987; Isen & Daubman, 1984; Kahn & Isen, 1993). Isen and Erez (2007) assert that implicit measures to test for the intended affect are preferable to self-report measures. In a comparison of affect inductions, Isen et al. (1997) concluded that self-report manipulation checks were especially inappropriate for conditions in which participants receive a reward or gift, due to possible increases in suspicions of the experimenter’s intent with self-report measures. The “H-test” is an implicit measure that has been used previously as a manipulation check in studies on cognition and behavior (e.g. Wan, Isen, & Sternthall, 2006).

Two independent coders rated each word for positivity (positive, not positive) and unusualness (unusual, usual). If the word was positive, it received a score of 1, and if the word was unusual, it received a score of 1. The coders were two college females from a large Northeastern University who received identical directions for coding the words. These coders were both blind to the hypotheses and conditions of the study. For each participant’s “H-test,” the maximum possible score for both positivity and unusualness was 5 and the minimum was 1. The inter-rater reliability for the respective categories was calculated using Cohen’s kappa, and the respective kappas were  $\kappa = .83$  and  $\kappa = .77$ . These kappa coefficients are considered acceptable



according to Cohen (1960). Independent samples t-tests revealed that participants in the positive affect condition ( $M=3.19$ ,  $SD=1.19$ ) significantly differed from participants in the neutral affect condition ( $M=2.07$ ,  $SD=1.15$ ) for the positivity of the listed words,  $t(90)=-4.75$ ,  $p<.01$ . Participants in the positive affect condition ( $M=3.31$ ,  $SD=.69$ ) also produced a greater number of uncommon words than participants in the neutral affect condition ( $M=2.58$ ,  $SD=.96$ ),  $t(90)=-4.24$ ,  $p<.01$ .

#### *Data Analysis Strategy*

The data analysis necessitated several stages. The sections below detail the process of data coding and a general overview of the approach to data analyses.

The coding process was as follows: demographic information provided by the participant was scored as either a match or mis-match with the race and gender of the character in the story. Race was a between-subjects variable, so if the participants matched the character in the first story on race, they also matched with the character's race for the second story. Gender of the character, and thus gender match, was variable within-subjects, such that each participant matched one character in gender, and did not match the character's gender on the other story. Extraversion averages on the NEO-FFI extraversion subscale were calculated by reverse coding four items, and then averaging the 12 items that comprised the subscale. Each participant then received a binary code if his or her extraversion average was higher than the median score for the sample (the median score was 3.75 out of a possible 5 point maximum). Lastly, participants received a binary code (1 for match, 0 for mis-match) if their extraversion level (high or low) matched the extraversion level of the character in the encountered stories (high or low). Like the gender match variable, extraversion match was also variable within-subjects. Frequencies for the race match, gender match (Stories 1 and 2), and extraversion variables (Stories 1 and 2) by positive affect condition can be seen in Table 2.

Table 2. Frequencies for Race Match, Extraversion Match, and Gender Match

Variables

Affect Condition	Race Match	Extraversion Match	Gender Match
Neutral Affect	45	44	45
Positive Affect	47	44	47
Total	92	88	92

The within-subjects variables of gender match and extraversion match necessitated several stages of data analysis. First, a 4 (story set) x 2 (story order) repeated-measures ANOVA was used to determine order effects. Story order and story set were used as control variables. For some dependent variables, there were significant interactions between these two variables. For dependent variables that were not affected by the story set and story order interaction, analyses were conducted by collapsing across story set and story order. To test for the main hypotheses of the study, a 2 (race match) x 2 (affect condition) x 2 (extraversion match or gender match) repeated measures ANOVA was run for each of the factor scores and additional variables of interest. Results of the story set and story order analyses are presented first in this chapter (when applicable) and are followed by tests of hypotheses

Since two sets of stories were used for this study and counterbalanced across participants, the initial stage of data analysis used a 4 (story set) x 2 (story order) repeated-measures ANOVA to test for differences in the sets of stories and also order effects. Story set had 4 levels (1: First story's protagonist a high extraversion female (HEF) and second story's protagonist a low extraversion male (LEM); 2: LEM-HEF; 3: HEM-LEF; and 4: LEF-HEM) and story order had 2 levels (first story, second story). Story set or story order effects were not anticipated, but as the following analyses reveal, some effects were observed. Please see Table 3 for a representation of all the relevant means for the 4 (story set) x 2 (story order) repeated measures ANOVA.

Table 3. Story Set and Story Order Means, by Select Dependent Variables

**Wishful Identification**

<b><u>Story Set</u></b>	<b><u>Story Order</u></b>	<b><u>Mean</u></b>	<b><u>Std Deviation</u></b>
1: HEF-LEM	First Story	2.88	0.72
	Second Story	2.54	0.79
2: LEM-HEF	First Story	2.81	0.68
	Second Story	2.85	0.57
3: HEM-LEF	First Story	2.35	0.89
	Second Story	2.21	0.76
4: LEF-HEM	First Story	2.2	0.65
	Second Story	3.81	0.47

**Identification**

<b><u>Story Set</u></b>	<b><u>Story Order</u></b>	<b><u>Mean</u></b>	<b><u>Std Deviation</u></b>
1: HEF-LEM	First Story	3.80	0.56
	Second Story	3.05	0.85
2: LEM-HEF	First Story	3.50	0.66
	Second Story	3.57	0.77
3: HEM-LEF	First Story	3.42	0.56
	Second Story	3.64	0.84
4: LEF-HEM	First Story	3.75	0.78
	Second Story	3.47	0.73

**Interest**

<b><u>Story Set</u></b>	<b><u>Story Order</u></b>	<b><u>Mean</u></b>	<b><u>Std Deviation</u></b>
1: HEF-LEM	First Story	2.89	0.89
	Second Story	2.46	1.00
2: LEM-HEF	First Story	2.54	0.71
	Second Story	2.68	0.78
3: HEM-LEF	First Story	2.42	0.85
	Second Story	2.16	1.16
4: LEF-HEM	First Story	2.29	0.87
	Second Story	2.86	0.77

Table 3. Story Set and Story Order Means, by Select Dependent Variables (Continued)

<b>Similarity</b>			
<b>Story Set</b>	<b>Story Order</b>	<b>Mean</b>	<b>Std Deviation</b>
1: HEF-LEM	First Story	3.43	0.81
	Second Story	2.86	0.62
2: LEM-HEF	First Story	3.39	0.63
	Second Story	3.39	0.74
3: HEM-LEF	First Story	3.35	0.59
	Second Story	3.26	0.93
4: LEF-HEM	First Story	3.65	0.71
	Second Story	3.27	0.78

<b>Transportation</b>			
<b>Story Set</b>	<b>Story Order</b>	<b>Mean</b>	<b>Std Deviation</b>
1: HEF-LEM	First Story	2.97	0.87
	Second Story	2.56	0.86
2: LEM-HEF	First Story	2.67	1.03
	Second Story	3.00	0.96
3: HEM-LEF	First Story	2.81	1.02
	Second Story	2.81	1.02
4: LEF-HEM	First Story	2.86	0.94
	Second Story	2.61	0.75

<b>Willingness to Purchase</b>			
<b>Story Set</b>	<b>Story Order</b>	<b>Mean</b>	<b>Std Deviation</b>
1: HEF-LEM	First Story	2.87	0.97
	Second Story	2.09	0.95
2: LEM-HEF	First Story	2.57	0.78
	Second Story	2.52	0.73
3: HEM-LEF	First Story	2.08	0.72
	Second Story	2.25	1.11
4: LEF-HEM	First Story	1.91	0.81
	Second Story	2.32	0.89

Table 3. Story Set and Story Order Means, by Select Dependent Variables (Continued)

**Actual Self: Number of Listed Similarities**

<b>Story Set</b>	<b>Story Order</b>	<b>Mean</b>	<b>Std Deviation</b>
1: HEF-LEM	First Story	2.61	1.23
	Second Story	2.52	1.47
2: LEM-HEF	First Story	2.95	1.36
	Second Story	2.26	1.36
3: HEM-LEF	First Story	2.47	1.12
	Second Story	2.47	1.72
4: LEF-HEM	First Story	2.27	1.2
	Second Story	2.86	1.46

**Actual Self: Number of Letters in Text**

<b>Story Set</b>	<b>Story Order</b>	<b>Mean</b>	<b>Std Deviation</b>
1: HEF-LEM	First Story	132.74	55.42
	Second Story	93.74	52.77
2: LEM-HEF	First Story	132.96	60.18
	Second Story	133.43	59.44
3: HEM-LEF	First Story	91.65	50.52
	Second Story	114.83	62.17
4: LEF-HEM	First Story	130.18	68.94
	Second Story	97.59	60.92

Since there were 2 within-subjects variables (extraversion match and gender match, which co-varied), a total of 22 models resulted. The co-variation of extraversion match and gender match consisted of the following: if a participant was randomly assigned to first read about a female character, then the participant would read about a male character in the second story, or vice versa, and if the participant read about a low extraversion character in the first story, then he or she would encounter a high extraversion character in the second story, or vice versa. A total of 11 models examined the effects of positive affect, race match, and extraversion match on 11 dependent variables (six factors, and five additional items). Another 11 models examined the effects of positive affect, race match, and gender match on the same 11 dependent variables. The co-variation of gender matching and extraversion matching

presents a limitation in the interpretation of the data: the conclusions drawn from data analysis are tentative until further studies when variables do not co-vary can be conducted. The generalizability and interpretation of these data is limited due to the confound presented by the lack of a fully factorial design.

### *Tests of Hypotheses*

The original hypotheses predicted main effects for the between-subjects variables of positive affect condition and match on race and the within-subjects factors of match on extraversion and match on gender. Specifically, it was predicted that people in the positive affect conditions and those matching on the demographic and personality characteristics would have higher identification scores than people not in a neutral affect condition and those not matching on the demographic and personality characteristics. A 2 (race match) x 2 (affect condition) x 2 (extraversion match or gender match) repeated-measures factorial analysis of variance was conducted for each of the 11 dependent variables of interest, with extraversion match or gender match as the repeated measure. Extraversion match and gender match were analyzed separately, as the two variables co-varied in the study (participants received stories and pictures that differed on both extraversion and gender from story 1 to story 2 and thus, a full factorial design was not utilized). To analyze the data, all average scores for items grouped into their respective factors were compared between those participants who did not match on extraversion and those who matched on extraversion (thus, extraversion match was the repeated measure), and positive affect and race match were examined as between subject factors. 11 models were produced using extraversion match as the repeated measure. A second set of 11 models was produced using gender match as the repeated measure and this was completed by comparing scores for dependent measures for participants who matched on gender and participants who did not match on gender, with positive affect and race match as

between-subjects variables. As the factor analysis revealed, identification seems to be a multi-dimensional construct. Results will be presented below, organized by the six factors from the identification scale and five additional items that related to hypotheses in this study.

*Wishful Identification.* An unintended significant story order by story set interaction was found. Participants reading story sets 1 and 3 scored higher on the measure when reading the first story in the set than when reading the second ( $F(3,87)=37.43, p < .01$ ). For story set 4, participants had higher means for wishful identification on the second story than the first story (refer to Table 3). To examine this relationship further, post-hoc t-tests showed that participants scored higher on the wishful identification measure when reading about a high extraversion character ( $M=3.19, SD=.76$ ) than when reading about a low extraversion character ( $M=2.48, SD=.76; t(89)=-4.39, p < .01$ ). The following results on the tests of hypotheses for wishful identification should be interpreted in light of the finding that people experienced greater wishful identification with high extraversion characters over low extraversion characters.

The hypotheses of this study predicted that matching on gender, race, and extraversion would be associated with higher levels of wishful identification than the levels of wishful identification for people who did not match on gender, race, and/or extraversion. In addition, positive affect was expected to be associated with higher wishful identification scores than neutral affect. Limited support for these hypotheses was found.

The repeated-measures analysis of variance revealed no significant main effects or interaction effects for the wishful identification factor when matching on extraversion was the repeated measure. No support for hypotheses was found.

However, a significant interaction was revealed between gender match and race match, when gender match was the repeated measure,  $F(1, 75) = 6.07, p < .05$ . Participants who matched on race and gender indicated lower wishful identification scores ( $M=2.59, SD=.79$ ) than those who did not match on either ( $M=2.76, SD=.86$ ), than those who matched on race but not gender ( $M=2.98, SD=.82$ ), and than those who matched on gender but not race ( $M=3.03, SD=.92$ ). The original hypotheses predicted a main effect for gender match and race match, such that participants matching on gender would have higher wishful identification scores than those not matching on gender, and participants matching on race would have higher wishful identification scores than those not matching on race. It was also hypothesized that participants matching on both gender and race would have the highest wishful identification scores, followed by participants who matched the character on either race or gender, and then participants matching on neither race nor gender. These hypotheses were not supported.

This significant two-way interaction revealed an unpredicted result, namely, that participants who differed from the character on race but not on gender, or participants who differed from the character on gender but not race tended to score higher on wishful identification than participants who matched the character on race and gender, or participants who matched the character on neither race nor gender. This implies that some degree of matching, but not an absolute match or mis-match, is optimal for wishful identification. A post-hoc t-test revealed that the interaction was primarily driven by effect of gender matching on participants who matched on race. When race of the character matched that of the participant, matching on gender was associated with less wishful identification ( $M=2.59, SD=.79$ ) than not matching on gender ( $M=2.98, SD=.82$ ),  $t(54) = -2.6, p < .05$ . That is, it seems that not matching on gender really played a role in the process of wishful identification, when race



matched, but did not seem to play a role in the process when race did not match.

Please see Figure 1 for a graphical representation of the interaction.

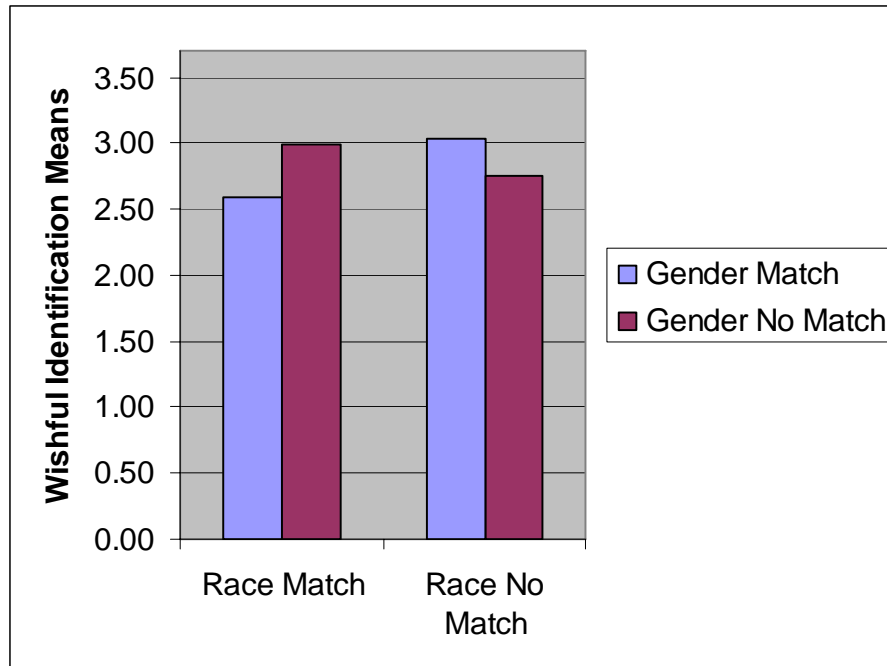


Figure 1. Wishful Identification Means, by Race Match and Gender Match

To examine this interaction further, post-hoc t-tests were run to examine differences in wishful identification for white people versus non-white people. On stories where participants did not match, a non-significant trend was found. White participants reading about white characters had higher means than did the white participants reading about non-white characters,  $t(35) = -1.27, p > .05$  ( $M = 2.96, SD = .69$  and  $M = 2.76, SD = .76$  respectively). Post-hoc tests examining differences in gender for wishful identification found that females reading about males had higher wishful identification scores ( $M = 3.1, SD = .76$ ) than did males reading about females ( $M = 2.53, SD = .67$ ),  $t(89) = -3.14, p < .01$ .

*Identification.* Like the analysis examining story order and story set effects for wishful identification, the analyses using story set and story order as control variables for identification also revealed significant effects. A significant main effect for story

order was found, such that the identification score from the first story participants read ( $M=3.61$ ,  $SD=.65$ ) was higher than the identification score from the second story they read ( $M=3.44$ ,  $SD=.82$ ;  $F(1,87)=5.375$ ,  $p < .05$ ). In addition, a significant interaction existed between story order and story set, such that participants reading story sets 1 and 4 scored higher on the measure when reading the first story in the set than when reading the second ( $F(3,87)=7.67$ ,  $p < .01$ ). For story sets 2 and 3, participants had higher means for identification on the second story than the first story. As can be seen in Table 3, both male and female participants identified more with the female characters ( $M=3.73$ ,  $SD=.80$ ) than with the male characters ( $M=3.23$ ,  $SD=.77$ ),  $t(87)=-2.95$ ,  $p < .01$ . Thus the tests of hypotheses need to be interpreted with this finding in mind.

The identification factor was one of the components for the multi-dimensional construct of identification. The original hypotheses predicted that matching on gender, race, and extraversion would be associated with higher levels of identification than if matching did not occur. In addition, positive affect was expected to be associated with higher identification scores than neutral affect. Limited support for these hypotheses was found.

No main effects were found when extraversion match was the repeated measure. However, a significant interaction was found for positive affect, race match, and extraversion match,  $F(1, 84)=4.07$ ,  $p < .05$ . As expected from hypotheses, in the neutral affect condition, participants who did not match on race or extraversion had lower identification scores ( $M=3.17$ ,  $SD=.79$ ) than did participants who matched on both race and extraversion ( $M=3.50$ ,  $SD=.75$ ),  $t(42)=1.95$ ,  $p = .05$ . This supports the hypothesis that matching on race and extraversion is associated with greater identification. The participants in the neutral affect condition who did not match on either demographic dimension had the lowest means among the eight means examined

in this interaction ( $M=3.17$ ,  $SD=.79$ ), whereas the highest means were exhibited by those who matched on extraversion and race ( $M=3.66$ ,  $SD=.72$ ). In addition, as predicted by the hypotheses, participants in the positive affect condition who did not match characters on neither race nor extraversion ( $M=3.63$ ,  $SD=.82$ ) reported greater identification than did participants in the neutral affect condition who did not match on gender nor extraversion ( $M=3.17$ ,  $SD=.79$ ),  $t(34)=1.74$ ,  $p=.09$ . Participants in the positive affect condition tended to report higher identification scores than participants in the neutral affect condition, except when race matched, but extraversion did not, as illustrated by Figure 2 below. It should be noted though that while positive affect tended to be associated with higher identification means, the only marginally significant difference between scores for the positive affect and neutral affect conditions were found only when neither race nor extraversion matched.

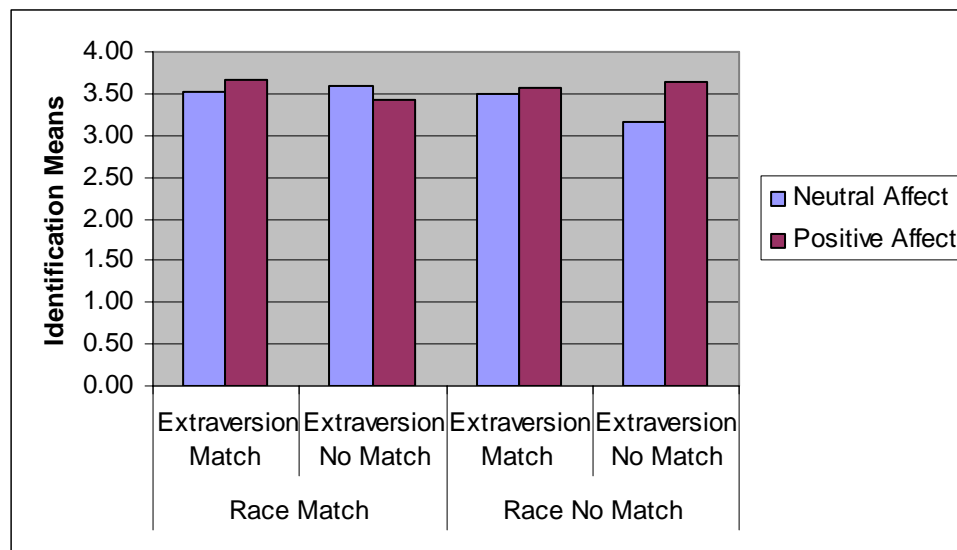


Figure 2. Identification Means, by Race Match, Extraversion Match, and Affect Condition

The repeated measures ANOVA also revealed a significant main effect for gender match, when gender match was the repeated measure,  $F(1, 89) = 5.50$ ,  $p < .05$ .

As predicted by hypothesis 1b (*Individuals will identify with fictional characters who have similar demographic characteristics to themselves*), participants matching on gender tended to identify more ( $M=3.64, SD=.71$ ) than did participants not matching on gender ( $M=3.39, SD=.82$ ). However, no main effect was found for the other demographic variable, race match. Contrasting results from models with extraversion match as the repeated measure, there were no significant differences between positive affect participants and neutral affect participants when gender match was used as the repeated measure. This likely reflects the limitation in the confound between extraversion matching and gender matching.

The finding that gender matching was associated with greater identification and the finding that people identified more with female characters than male characters may seem discrepant. The fact that the number of females participating in this study was greater than the number of males participating (57 versus 35, respectively) may offer some clarification on the apparent discrepancy.

*Interest.* No significant main effect for story order was found. However, an interaction of story set and story order was found,  $F(3, 87) = 4.52, p < .01$ . For story sets 1 and 3, interest scores were higher for the first character than for the second, whereas in story sets 2 and 4, interest scores were higher for the second character than for the first. To further parse out the interaction between story set and story order, post-hoc t-tests were used to test for differences in interest for high extraversion characters and low extraversion characters. Participants scored significantly higher on the interest measure when reading about a high extraversion character ( $M=2.72, SD=.84$ ) than when reading about a low extraversion character ( $M=2.37, SD=.88$ ),  $t(90) = -1.95, p = .05$ . This was particularly true for the highly extraverted readers, as indicated by the marginally significant main effect for extraversion match, discussed below. That people of both low and high extraversion were more interested in highly

extraverted characters may partially be explained by the fact that 49 high extravert participants were in the study, as opposed to only 39 low extravert participants.

Interest in the character was found to be marginally significantly different between those who matched on extraversion ( $M = 2.62, SD = .95$ ) versus those who did not match on extraversion ( $M = 2.40, SD = .86$ ),  $F(1, 84) = 3.58, p = .06$ . Thus, as predicted by hypothesis 1a (*Individuals will identify with fictional characters who have similar Big Five personality dimensions to themselves*), similarity in extraversion was associated with a slightly greater interest in the characters. This was only true for readers who were high in extraversion,  $t(48) = 3.3, p < .05$ , however.

Hypotheses predicted a main effect for race match and gender match. However, the repeated measures analysis of variance revealed no significant main effects or interaction effects for the interest factor when gender match was the repeated measure. Race match was also not significantly related to interest scores.

*Similarity.* A marginally significant main effect for story order was found,  $F(1, 86) = 2.67, p = .07$ . Participants had higher similarity scores for the first story they read ( $M = 3.46, SD = .69$ ) than for the second story ( $M = 3.28, SD = .78$ ). In addition, a significant main effect was found for the story set,  $F(3, 86) = 2.80, p < .05$ . Story sets 2 and 4 had higher means ( $M = 3.39, SD = 1.09$  and  $M = 3.621, SD = 1.09$  respectively) on this factor than did story sets 1 and 3 ( $M = 3.15, SD = 1.07$ , and  $M = 3.30, SD = 1.07$ , respectively). An examination of the means from Table 3, however, reveals no clear cut systematic patterns as to the role of the gender of the character or the extraversion level of the character in predicting similarity scores.

Congruent with Hypothesis 1a (*Individuals will identify with fictional characters who have similar Big Five personality dimensions to themselves*), participants who matched the character on extraversion recognized that they were similar to the character, as they indicated higher scores for the similarity measures

( $M=3.45$ ,  $SD=.72$ ) marginally more than did those who did not match on extraversion ( $M=3.25$ ,  $SD=.75$ ),  $F(1, 82) = 2.96$ ,  $p = .09$ . Paralleling results from the interest factor, this main effect is significantly different only for the highly extraverted readers,  $t(48) = 2.97$ ,  $p < .05$ . Thus, matching on extraversion may be associated with higher perceived similarity, but only for those readers who are high in extraversion.

There were no significant main effects or interactions for gender match, race match, or positive affect.

*Transportation.* No significant main effect for story order was found. However, an interaction of story set and story order was found,  $F(3, 87) = 2.75$ ,  $p < .05$ . Participants had higher transportation scores for the first character in story sets 1 and 4 than they did for the second character in their respective story sets, and participants reading story set 2 yielded higher transportation scores when reading about the second character than when they read about the first character. A post-hoc  $t$ -test showed that participants were more transported when reading about the female character ( $M=3.00$ ,  $SD= 1.04$ ) than when reading about the male character ( $M=2.59$ ,  $SD=.77$ ),  $t(90) = -2.16$ ,  $p < .05$  (see Table 3 for the means).

The repeated measures analysis of variance revealed a marginally significant between-subjects main effect for positive affect,  $F(1, 88) = 2.91$ ,  $p = .09$ . Individuals in the positive affect condition were more transported into the text ( $M=2.95$ ,  $SD=.93$ ) than were individuals in the neutral affect condition ( $M=2.65$ ,  $SD=.96$ ). However it should be noted that this result was marginally significant only when gender match was the repeated-measure, and was not significant when extraversion match was the repeated-measure (the  $p$ -value for the latter model was .16). This result provides limited support for the hypothesis that positive affect is associated with components of identification, one of which includes transportation. However, the support for this

hypothesis is limited by the confound between extraversion matching and gender matching in the design of the original study.

No support was found for the hypotheses that predicted gender match, race match, and extraversion match would be associated with greater transportation.

*Wish for Achievement.* Repeated-measures analysis of variance revealed no significant main effects or interactions of story set or story order for this dependent variable, and thus analyses were collapsed across these variables.

No significant main effects or interactions were found for this dependent variable when extraversion match was the repeated measure.

When gender match was used in the ANOVA as the repeated-measure, no significant main effects were found, but the interaction of gender match and race match was marginally significant,  $F(1, 88) = 3.62, p = .06$ . Surprisingly, participants who matched on both race and gender had lower average scores for this item ( $M = 3.26, SD = .94$ ) than did participants who matched on gender but not race ( $M = 3.73, SD = .97$ ), those who matched on race but not gender ( $M = 3.53, SD = .94$ ) or those who matched on neither demographic variable ( $M = 3.52, SD = 1.00$ ). Post-hoc t-tests revealed that when race matched, scores for this item were higher for those who did not match on gender ( $t(54) = 1.84, p = .07$ ), but when race did not match, gender match did not make much of a difference ( $t(37) = .98, p > .05$ ). Please see Figure 3 for a further illustration of this interaction.

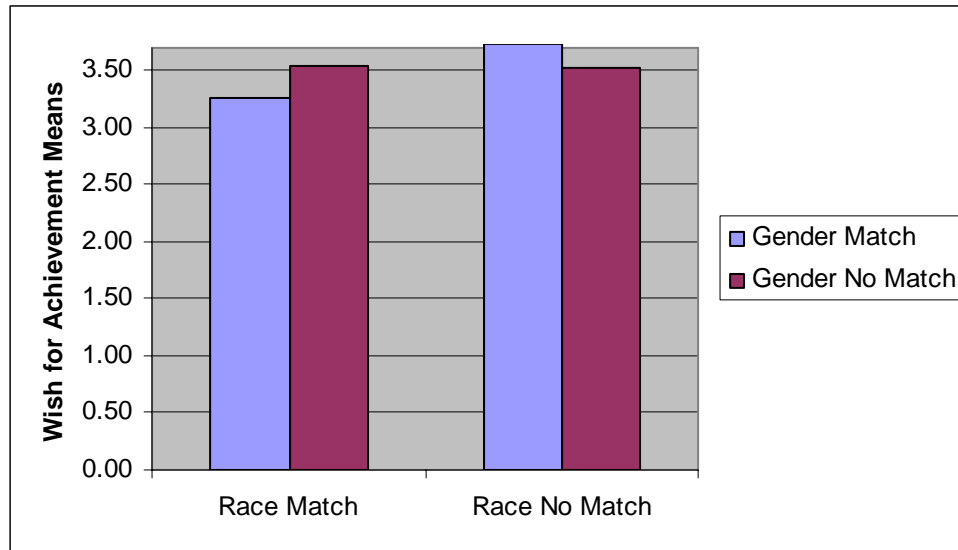


Figure 3. Wish for Achievement Means, by Race Match and Gender Match

*Willingness to Purchase.* No significant main effect for story order was found. However, the repeated measures analysis of variance yielded a significant F-value for the interaction of story order and story set,  $F(3, 87) = 6.84, p < .01$ . Participants reading story sets 1 and 4 indicated greater willingness to purchase items that the first character likes than those that the second character likes. From Table 3, it appears that the highest means are associated with the high extraversion characters in story sets 1 and 2. Thus, a post-hoc t-test was conducted to test for the differences in means. High extraversion characters received higher scores ( $M = 2.61, SD = .92$ ) for willingness to purchase scale than did low extraversion characters ( $M = 2.13, SD = .81$ ),  $t(90) = -2.70, p < .01$ .

Participants were asked to indicate their willingness to purchase items that the character likes. Analyses for this dependent variable reveal a marginally significant interaction for extraversion match, positive affect, and race match,  $F(1, 84) = 3.45, p = .07$ . Specifically, participants in the positive affect condition who matched on race and on extraversion indicated significantly higher willingness to purchase ( $M = 2.82$ ,



$SD=.83$ ) than did participants in the neutral affect condition ( $M= 2.25, SD=.73$ ), congruent with hypotheses,  $t(50)=2.56, p < .05$ . However, when participants did not match the character on race, participants in the neutral affect condition indicated a higher willingness to purchase when extraversion matched ( $M=2.47, SD=1.02$ ) than did participants in the positive affect condition who did not match on race but matched on extraversion ( $M=2.00, SD=.87$ ). This difference is not statistically significant though,  $t(50)=1.49, p > .05$ . The original hypotheses predicted that individuals induced with positive affect would have greater means for dependent measures regardless of matching on demographic or personality dimensions. This interaction seems to indicate that positive affect may only be associated with greater willingness to purchase when both race and extraversion match, and does not seem to be associated with greater willingness to purchase if there is no match on a demographic variable, such as race. Please see Figure 4 below for further information on this three-way interaction.

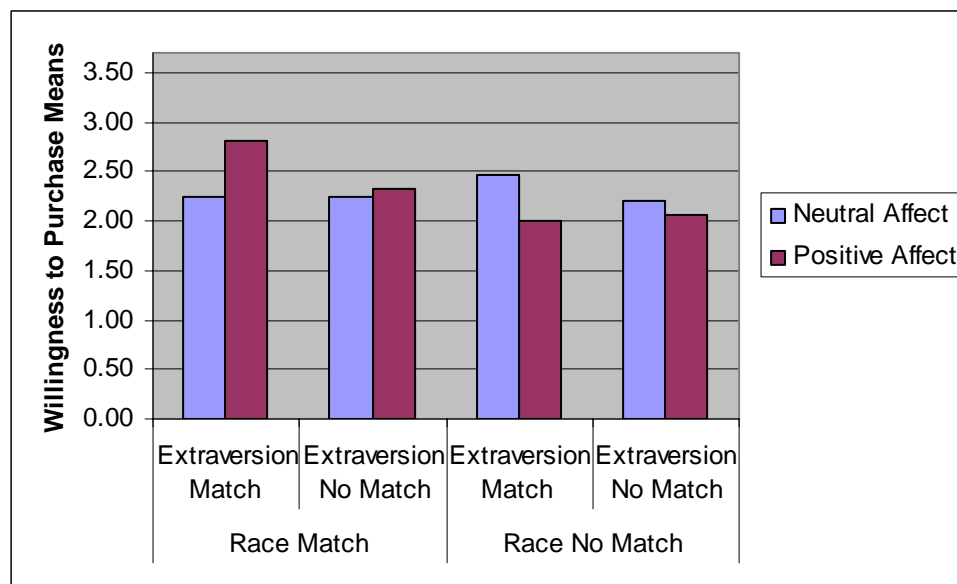


Figure 4. Willingness to Purchase Means, by Race Match, Extraversion Match, and Affect Condition

A marginally significant interaction was also found between race match and positive affect, when gender match was used as the repeated-measure,  $F(1, 76) = 3.37$ ,  $p = .07$ . As predicted, participants who matched on race in the positive affect condition indicated a greater willingness to purchase items the character likes ( $M = 2.55$ ,  $SD = .66$ ) than those who matched on race in the neutral affect condition ( $M = 2.26$ ,  $SD = .66$ ),  $t(37) = 1.68$ ,  $p = .07$ . Contrary to the hypothesis that positive affect would be associated with increased identification (and willingness to purchase items that the character likes), the direction of the means showed that participants in the neutral affect condition who did not match the character on race indicated a greater willingness to purchase ( $M = 2.34$ ,  $SD = .71$ ) than did participants in the positive affect condition who did not match the character on race ( $M = 2.03$ ,  $SD = .59$ ). This difference was not statistically significant though,  $t(37) = 1.06$ ,  $p > .05$ . Thus, matching on race was associated with greater willingness to purchase, but only for those readers experiencing a mildly positive mood. Please see Figure 5 below for an illustration of the nature of this interaction.

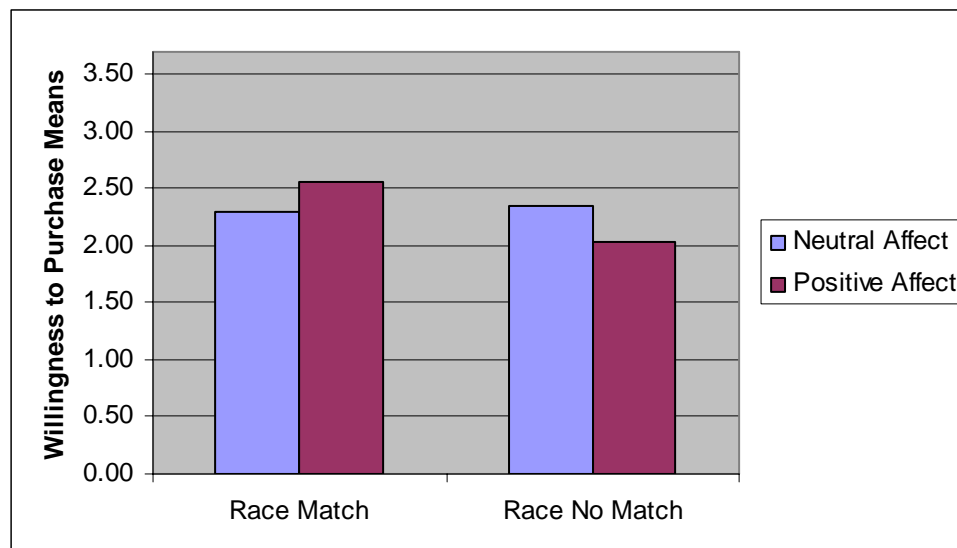


Figure 5. Willingness to Purchase Means, by Race Match and Affect Condition

*Open-Ended Actual Self Question.* The repeated-measures ANOVA indicated an interaction between story order and story set for the number of similarities listed,  $F(3, 87) = 2.88, p < .05$ . More similarities were generated by participants for the character in the first story for story set 2 ( $M=2.95, SD=1.36$ ) and for the second character in story set 4 ( $M=2.86, SD=1.46$ ).

The repeated-measures analysis of variance for the number of letters/characters written revealed a significant main effect for story order,  $F(1, 87) = 4.78, p < .05$ . Participants used more letters/characters in response to this question for the first story ( $M=122.55, SD=60.92$ ) than they used in response to the second story ( $M=110.03, SD=59.37$ ). A two-way interaction for story set and story order is also present,  $F(3, 87) = 6.11, p < .01$ . Participants wrote more about the first character in story sets 1 and 4, but more about the second character in set 3. From Table 3, it appears that participants used more text to write about their similarities with the character if the character was highly extraverted. A post-hoc t-test of this assertion was not significant,  $t(90) = .80, p > .05$ .

Participants were asked to list perceived similarities with the protagonists of the stories they read. The number of similarities was counted, and hypotheses predicted that participants who matched the character on gender, race, and/or extraversion would yield a greater number of perceived similarities than participants who did not match on these dimensions. In addition, it was predicted that participants in the positive affect condition would generate a greater number of perceived similarities than participants in the neutral affect condition, regardless of demographic or personality matching. Limited support for these hypotheses was found.

A repeated-measures ANOVA revealed that readers who matched the character on race ( $M=2.64, SD=.82$ ) listed more similarities to the character than did those who did not match on race ( $M=2.01, SD=1.03$ ),  $F(1, 76) = 3.93, p = .05$ , consistent with

expectations. However, gender match interacted significantly with race match,  $F(1, 76) = 5.13, p < .05$ . The greatest average number of similarities was generated by the group that matched the character on race, but not gender ( $M = 2.97, SD = .89$ ). The group that matched on gender but not race ( $M = 2.43, SD = 1.03$ ) generated a relatively equal number of actual self similarities as did the group that matched on both race and gender ( $M = 2.42, SD = .85$ ). No support for the hypotheses regarding extraversion match and affect condition was found for the number of similarities listed by the participants.

The number of letters written by each participant in response to this item was also counted and analyzed using repeated-measures ANOVA. When participants matched on extraversion ( $M = 128.96, SD = 63.46$ ), they wrote significantly more text than did those who did not match on extraversion ( $M = 108.48, SD = 53.62$ ),  $F(1, 81) = 10.66, p < .01$ . In addition, a significant interaction between positive affect and gender match was found,  $F(1, 85) = 3.93, p = .05$ . Positive affect was associated with a tendency for participants to use more text to describe actual similarities when gender did not match,  $t(90) = 1.87, p = .06$ . However, when gender matched, participants in the positive affect condition and the neutral affect condition wrote a relatively similar amount of text in response to this open ended question,  $t(90) = .03, p > .05$ . Please see Appendix D for the means and please refer to Figure 6 for a graph of this interaction.

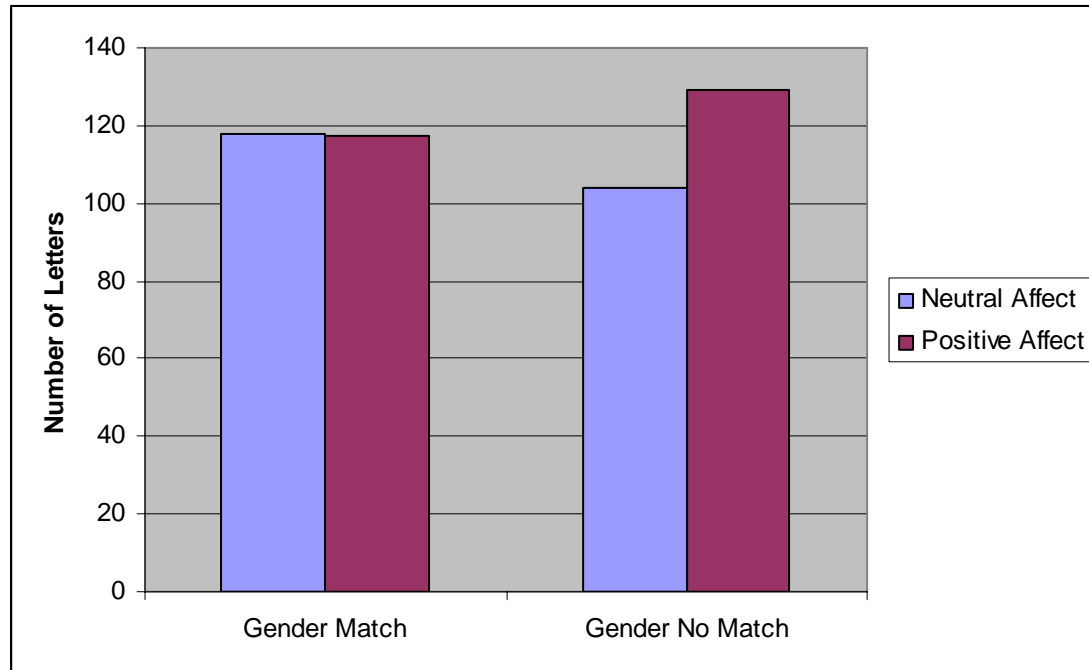


Figure 6. Open Ended Actual Self Question, Number of Letters by Gender Match and Positive Affect

*Open-Ended Ideal Self Question.* Repeated-measures analysis of variance revealed no significant main effects or interactions for story order and story set on the amount of text written in response to the ideal self open-ended question. Thus, story set and story order were collapsed across participants for tests of hypotheses.

Participants were asked to list ways in which the character possesses qualities/characteristics that they would also like to possess. The number of similarities was counted (with identical directions for coding actual self similarity), and hypotheses predicted that participants who matched the character on gender, race, and/or extraversion would yield a greater number of perceived ideal similarities than participants who did not match on these dimensions. In addition, it was predicted that participants in the positive affect condition would generate a greater number of perceived ideal similarities than participants in the neutral affect condition. Only support for matching on race was found.

Repeated-measures ANOVA revealed a significant main effect for race match,  $F(1, 76) = 5.05, p < .05$ . Readers matching the character on race ( $M=1.99, SD=.66$ ) indicated that the character had more desirable attributes than did readers who did not match the character on race ( $M=1.50, SD=.79$ ). Thus, hypotheses on demographic similarity were supported for this dependent variable.

The repeated-measures ANOVA revealed no significant main effects or interactions for the amount of text written. No support for the original hypotheses was found for this dependent variable.

## **CHAPTER 4**

### **DISCUSSION**

The main hypotheses of this study asserted that similarity in personality characteristics (in this study, the specific Big Five personality trait examined was extraversion) and similarities in demographic characteristics would be positively associated with identification scores. In addition, it was hypothesized that positive affect would also be associated with higher levels of identification than neutral affect. Limited support for these hypotheses was found. Matching on extraversion was associated with greater interest in characters and an increased perception of similarity with characters, but only when viewers were highly extraverted. Matching on race was associated with greater levels of identification and an increase in the number of perceived similarities that an individual could recognize. Generally, matching on gender was associated with greater levels of identification and a greater desire to see the character succeed in his or her goals. Positive affect was associated with greater identification, greater transportation into the narrative, and a tendency to use more text to describe similarities with the character. Several unexpected and complex interactions were observed among these four variables, and these interactions set contingencies upon the interpretations of the data. Indeed, identification is not a simple process, and several factors combine to produce identification and its related effects. The specific findings, issues, and implications of the current study's results are discussed below.

From the initial results of this study, it seems that identification has several elements, and that situational and dispositional variables, such as positive affect, and demographic and personality similarities interact differently for the elements comprising identification. This has several implications for how results from this

study can be generalized for future academic research as well as implications for how the results can be used by communication practitioners.

First, support for the notion that wishful identification and identification are subtly separate constructs was provided. As Hoffner and Buchanan (2005) asserted, wishful identification occurs when the viewer sees desirable attributes in the character and can thus psychologically absorb themselves in the storyline. In the current study, several items were related to whether or not the character possessed desirable attributes that the viewer did not have. These items were grouped into a “Wishful Identification” factor, for which factorial analysis of variance revealed different interactions and main effects than the factorial analysis of variance for the identification factor. The identification factor contained items that did not relate to any concepts of “ideal self” and queried about the viewer’s general experience of feeling the emotions and experiences of the character. Wishful identification and identification had different significant predictors in the current study, paralleling assertions made by Hoffner and Buchanan (2005).

Specific to wishful identification, the crucial predictors of one’s wishful identification levels were whether or not the reader matched the character on race or gender. Contrary to the original hypotheses, people who mismatched the character on race and gender had higher wishful identification for the characters than did those who matched on either of those demographic dimensions. It may be possible that individuals who are in more traditionally dominant social groups, such as white males, generally may not wishfully identify as much as individuals who are not already in these groups and may wish to be. A further analysis of the means from different racial groups suggested that wishful identification scores for non-white participants reading about a white participant were slightly greater than those of white participants reading about a non-white character. It should be emphasized, however, that the difference



was not statistically significant. When the average wishful identification scores were further examined, it was indeed found that females who read about a male protagonist, scored higher on the wishful identification items than males who read about a female protagonist. It may also have been the case that those who already matched on race and gender did not wish to be like the character since they were already like them.

Another variable which was originally hypothesized to increase wishful identification was matching on extraversion. No support for this hypothesis was found, but analyses also revealed that participants tended to wishfully identify more with the extraverted characters than characters with lower extraversion levels. Given that previous research has found extraversion to be a socially desirable characteristic, particularly in Western societies (Furnham, 1997), it is actually not surprising to find that people of all extraversion levels tended to wishfully identify with highly extraverted characters.

If a marketer or entertainment media producer wishes to increase levels of identification in a viewer or reader, then he or she needs to consider some slightly different, and more complex, variables and relationships than those he/she would need to consider for increasing wishful identification. Consistent with this study's original hypothesis, the data from the current study showed that a gender congruency between the viewer and character is an important variable to consider for identification. This study found that matching on gender produced higher identification scores. In addition, both male and female viewers were found to identify more with female characters than with male characters. These two findings, that people identified more when they matched on gender, and that both males and female readers identified more with female characters, may seem contradictory but can actually be reconciled when two further insights are taken into consideration: 1) that more females than males participated in this study and thus could have matched with the female characters at a

greater frequency, producing the finding that female characters were more easy to identify with than male characters as well as the finding that matching on gender increased identification scores, and 2) that traditionally, women have been found to be more empathic than men, when measured using self-reports (Eisenberg & Lennon, 1983). Thus, perhaps the effect of matching on gender is amplified when females are reading about females, in that female readers may feel more empathic towards the female character than male readers feel when reading about characters of any gender, producing the finding that people in this study identified more with female characters.

The process of identification becomes a bit more complex when one considers matching on personality and matching on race. It appears that situational variables also need to be considered when identification is desired. Generally speaking, matching on race was associated with higher levels of identification for the viewer, but matching on extraversion was not. Among the highest identification scores for those experiencing situational positive affect were those associated with individuals who matched on neither race nor extraversion. This finding could perhaps be explained by previous research which indicates that positive affect can increase one's cognitive flexibility. This suggest that even though the viewer is not actually similar to the character from a demographic or extraversion standpoint, the viewer is able to consider other dimensions that could be shared and thus help him or her identify or "be in someone else's shoes." Personality characteristics other than extraversion or demographic characteristics not considered or controlled for by this study could have been additional dimensions that participants in the positive affect condition were able to consider in the character. This result is consistent with previous studies on positive affect, cognitive flexibility, and social categorization, particularly Dovidio, Gaertner, Isen, and Lowrance (1995) which found that positive affect increased the extent to which people formed inclusive group representations. A number of studies converge

to find a significant relationship between cognitive flexibility and positive affect (Carnevale & Isen, 1986; Dovidio, Gaertner, Isen, & Lowrance, 1995; Estrada, Isen, & Young, 1997; Kahn & Isen, 1993); thus participants in the positive affect condition may have indeed considered more alternatives of categories to which the character may be similar to him or herself, and thus identify more with the character. While the open-ended question which asked participants to list similarities between him-or-herself and the character did not find a substantial increase in the number of similarities recognized by individuals experiencing positive affect, it may be the case that the alternatives considered were not actively or consciously recognized by those experiencing positive affect.

Identification and appreciation for the character, which was termed ‘interest’ in this study, are related concepts that may influence viewer responses. A recent study by Konijn and Hoorn (2005) asserts that adult viewers may be able to appreciate a character without necessarily identifying with the character. In the current study, identification and interest were correlated, but tended to have different variables associated with each process. Matching on gender and matching on race were not associated with greater interest in the characters, but rather were associated with greater levels of identification than those not matching on race or gender. High extraversion characters were found to more interesting, and matching on extraversion was associated with higher interest scores. Konijn and Hoorn (2005) asserted that appreciation for a character and the distance from the character (in terms of whether the character can be viewed objectively) are loosely linked but independent. These two researchers seem to imply that appreciation may occur even when viewers are distanced from the character. The results from the current study are moderately supportive of the assertions from Konijn and Hoorn (2005), suggesting that people are interested in or intrigued by characters that may be similar to them on some aspects

but different in others. Some degree of similarity between the viewer and character, particularly similarity in extraversion, is associated with interest in the character.

Consistent with previous research on similarity and identification (e.g. Cohen, 2006; Green, 1999; Maccoby & Wilson, 1957), perceived similarity and identification were significantly correlated in this study. The more similarities that were perceived by the viewer, the more identification the viewer experienced, and vice versa.

However, since this relationship is correlational, the direction of causation can not be determined. Generally speaking, matching on extraversion was not associated with greater levels of identification, but was associated with an increased perception from the viewers that they were similar to the character.

Also related to research on identification and similarity is the phenomenon of transportation. Transportation occurs when readers or viewers become so involved and absorbed in the narrative and focused on the events it portrays, that they feel as if they have been transported from their location as viewers into the narrative (Gerrig, 1993). In the current study, matching the character on demographic or personality traits did not seem to make much of a difference for the reader in whether or not they were “transported” into the text. However, the situational variable of positive affect helped readers become more transported into the text than did neutral affect. In addition, both male and female readers were more transported when reading about female characters than when reading about male characters. Whether or not this can generalize to other narratives involving female and male characters is limited by the tentative nature of conclusions drawn from this study (due to the unexpected interactions of stories). Thus, the finding that transportation tended to be higher with female characters may be an artifact of the nature of the specific texts generated for this study. Future research in this area should focus on developing and pre-testing a large number and variety of stories or stimuli for identification studies.

It was originally hypothesized that positive affect and similarity measures would be directly related. Support for this hypothesis was not found with the scale items pertaining to similarity. The open-ended question on actual self similarity, asked participants to write down the ways in which they were similar to the character and was developed to test for differences in the number of trait or situational dimensions recognized as being similarities by the reader. What is interesting to note about the results from this question is that while there were no differences in the number of dimensions generated by the participants in the positive affect and neutral affect conditions, participants in the positive affect conditions tended to use more text than participants in the neutral affect condition to describe the similarities they noted. Related to studies on positive affect and motivation, this result could be interpreted as providing additional support for the notion that people in mildly happy moods may persist longer on tasks (Erez & Isen, 2002).

The developed identification measure actually measured several factors, one of which included the items that most closely examine the operational definitions of identification previously used by social psychologists and media psychologists. This can be interpreted in one of two ways: 1) that identification is a broad term for a psychological process composed of several related sub-factors or 2) that in addition to measuring identification (one of the six factors revealed by the factor analysis), this scale unintentionally measured several other concepts, such as transportation and perceived similarity. Given that this was the first time this measure was administered, the resulting factors were likely a result of the process from which the scale was constructed (a combination of items originally suggested by Cohen (2001) and items developed by the study's main investigator). Further analysis needs to be conducted in order to determine the specific elements and constructs that identification encompasses.

Although this study used narratives and print media, results could possibly be extended to other forms of media that are more interactive and lengthier, such as television and movies. Though readers may not have been consciously aware of their reactions to the characters, they were influenced by the demographic and personality traits of the character. Consistent with findings from Reeves and Nass (1996), it seems that people are able to discern another's personality based on even the most limited amounts of information. In this case, the information presented consisted of 250 word vignettes and a photograph; in the case of Reeves and Nass' (1996) study, people were able to group similar personalities of mere line drawings of non-human objects. It appears that not much information is needed to activate one's autonomic tendencies to categorize others and to assign personality descriptions to them (Reeves & Nass, 1996). Since televised media can portray more visual cues about a character, it is possible that findings from this study may be replicated with televised media, or perhaps may be even more pronounced when a richer amount of information on the character's personality and nature is available. Future research may wish to explore this suggestion.

Several real-world implications arise from the findings of this study. A well-known finding in the literature is that the more someone identifies with another, the more likely the individual can be influenced by that other person or character (Anderson, 1983; Cantor, 1994; Dorr, 1981; McLeod, Atkin, & Chaffee, 1972; Paik & Comstock, 1994; Perry & Perry, 1976; Potter, Pashupati, Pekurny, Hoffman & Davis, 2002). Thus, the degree to which an author, advertising executive, or entertainment producer can increase a viewer's identification with a character, the more likely to occur are the behavioral consequences which the individual hopes to induce in the viewer. While this study does not examine specific behavioral consequences of identification, one of the suggestions arising from the results is that in order to

maximize the likelihood of influence, the creator of the message or narrative should determine which type of identification or aspect of identification he or she wishes to instill. This specification leads to different implications: if the author or message creator thinks that people are more influenced by wishful identification than by identification, this individual may wish to create a character that differs from the target audience in race or gender, or if the demographic characteristics of the character can not be manipulated, he or she may wish to consider using an extraverted character. On the other hand, if increasing transportation is the main goal of the practitioner, a helpful suggestion may be to instill a positive mood in the viewer prior to the time of exposure or introduction (i.e. utilize sound clips of pleasant music; Galizio & Hendick, 1972). The current study did not examine specific behavioral consequences from the sub-factors of identification, but the one item which most closely resembled a behavioral intention (willingness to purchase items the character likes) was found to be related to positive affect and whether or not viewers matched the character on race and extraversion. Participants in a positive mood who matched the character on race and extraversion were the most willing participants to consider purchasing items that the character liked. Future research should be conducted to determine the specific behavioral consequences that result from the multiple facets of identification, which could in turn lead to both a more in-depth understanding of the determinants of identification and the consequences of identification.

Several limitations of this study warrant a degree of caution for interpretations of the results. First, the large number of both independent and dependent variables prevented the completion of a fully factorial design in a practical and timely manner. Therefore, as noted in the previous chapter, the unique contributions of matching on gender and matching on extraversion could not be parsed out from the data, since the two co-varied across participants in the study. The results drawn from this study are

tentative until further experiments can demonstrate similar effects, parsing out the unique contributions of extraversion matching and gender matching. In addition, this confound presents a limitation on the generalizability of the study. The results may not be replicated if the experiment is carried out under different conditions, with a different population. Secondly, while this study seeks to foster a greater understanding of identification through examination of personality and demographic similarity, it should be duly noted that extraversion of the character was the sole personality dimension manipulated in this study. It is highly possible that readers perceived additional differences in the characters' personalities or read the intended extraverted behaviors as something other than extraversion. Krull and Dill (1998) indeed found that people commonly make both spontaneous dispositional and situational inferences about a film character, and that positive affect relates to both types of spontaneous inferences. Thus, it is unclear whether or not other trait inferences were formed in the minds of participants as a response to the stimuli in this study. If other trait inferences were made by viewers, results could have been affected in several ways. For example, if a highly extraverted participant matched the character on extraversion, but also perceived the character to be neurotic, identification could possibly be lower for this viewer if he or she is low on neuroticism, compared to a viewer who matched the character on neuroticism. Alternatively, if a viewer who matched the character on extraversion, and thus was more likely to indicate a greater interest in the character than those not matching on extraversion, mis-matched the character on the other four Five Factor Model (FFM) personality dimensions, then a generalization that similarity in personality is associated with greater interest in a character could not be asserted. Future studies may wish to examine other personality dimensions from the FFM or otherwise, and their relationships with identification. In addition, future studies may wish to use



other methods of assessing cognitive flexibility to explore whether spontaneous trait inferences were made; such a technique may be to ask participants to list adjectives they perceived in the character. A third limitation is that the amount of time that participants were exposed to the character and storyline was short and lasted under 10 minutes; thus the study may not accurately capture the process of identification with characters that may develop over time. The brief identification that may occur when one watches an advertisement's main characters may differ from the identification he or she may experience with a television series' protagonist. Identification levels in this brief exposure study may be lower than the identification that is experienced over repeated exposures to characters or exposures of longer duration.

In sum, identification is a complex process with both cognitive and affective components, one in which the reader or viewer is constantly shifting perspective from his or her conceptions of the real world to those of the imaginary world in the text or medium (Cohen, 2006). The current study finds that identification is comprised of a number of smaller and related processes, which can each be influenced by a number of variables. Both situational and dispositional variables interact to play a role in identification, supporting the notion that identification is an evaluative process consisting of an affective-cognitive interaction. Some of these variables examined in this study include the current mood of the viewer at the time of processing, as well as demographic and personality similarities between the viewer/reader and the character. These are just a few of the many possible factors involved in the complex process of identification. Future research should continue to shed light on the nature of the antecedents and consequences of this psychological process.

## **APPENDIX A:**

### **Narratives Used for the Study**

#### **High Extraversion Female**

“Today is a beautiful, sunny day. Wanting to take advantage of the nice weather, Heather decided to go for a walk. She makes it a goal to take a different path each time she goes for a walk, and this time was no different. As she started walking outside her apartment, she noticed in the distance one of her classmates walking towards her along the same sidewalk. This classmate wasn’t exactly the nicest person, a passive aggressive type that just loved to talk on and on about nothing at all. They had 2 classes together and have spoken on a number of occasions. Heather thought for a second about turning the other way, but she didn’t want to have to compromise checking out the new trail she had just planned, in order to avoid that unpleasant classmate. She kept walking in her intended direction, and when she was within talking distance of the mildly unpleasant classmate, she put a smile on her face, and treated her like an old friend. Not wanting to have to talk about any of the ridiculous things this girl normally wanted to talk about, Heather took control of the conversation by immediately bringing up one of the class assignments. After speaking with this girl for what seemed like forever (although, with a smile on her face and enthusiasm in her voice), Heather excused herself from the conversation and continued on her walk, exploring a new trail she had never been on before. It was a great day for Heather.”

### Low Extraversion Female

“Today is a beautiful, sunny day. Wanting to take advantage of the nice weather and also wanting to get some alone time, Heather decided to go for a walk. She takes a walk almost everyday, along the same old, rustic, and familiar path that she has been walking on for years. As she started walking outside her apartment, she noticed in the distance one of her classmates walking towards her along the same sidewalk. This classmate wasn’t exactly the nicest person, a passive aggressive type that just loved to talk on and on about nothing at all. This classmate never wanted to talk about substantial intellectual topics, topics which Heather loved to talk about. They had 2 classes together and have spoken on a number of occasions. Heather thought about turning in the other direction, in order to avoid that unpleasant classmate. She didn’t want to compromise walking on her usual path though, so she decided she would cross the street and walk on the other side until the classmate passed. Heather’s plan worked, as the classmate didn’t even notice her. She was able to get to her usual walking path without having any interactions with other people, just what she was looking for. It was a great day for Heather.”

### High Extraversion Male

“It was just another Monday at the office. Around 4PM, Dan had already finished all the projects that his boss had given him the week before. Since his boss was on vacation, there was no real way to reach him to find out what other assignments he could take on. So, Dan decided to take his extra time to network around the office. He had just started at the advertising agency a few weeks ago, and still didn’t know very many people. He took it upon himself to go to the other side of the office, where he hasn’t been before, and introduce himself to his new co-workers. Wearing a big grin on his face and stepping up to his usual charming and happy self, Dan went around from cubicle to cubicle, introducing himself and chatting with about 7 co-workers in the other departments. He even had a good conversation on the latest trends in advertising and marketing with the VP of Creative Services. Dan didn’t feel too nervous around him, and in fact, had such a pleasant conversation with him that the VP of Creative asked Dan to have lunch with him later in the week. Dan thought it was a pretty good Monday after all.”

### Low Extraversion Male

“It was just another Monday at the office. Around 4PM, Dan had already finished all the projects that his boss had given him the week before. Since his boss was on vacation, there was no real way to reach him to find out what other assignments he could take on. Dan wished he could have gotten in contact with him, especially since this latest report was a heavy theory-laden one, and Dan loved to talk about deep subjects like that. Given that he really couldn’t do anything else at the office for the day, Dan spent about another half hour at his computer, checking his e-mail. Then he decided to go over to his friend’s desk to talk about the latest findings from the their favorite academic journals. He had been friends with Jim for about a year now, and they would have intense conversations on research and methods in Paleontology, their field of study. So on this particular afternoon, Dan walked over to Jim’s desk and they had an intellectually stimulating talk for about an hour before they decided to leave the office and hang out at the local coffee shop to continue their conversation. Dan thought it was a pretty good Monday after all.”

## APPENDIX B:

### Identification Measure

Please read the following statements carefully and indicate the choice that best describes the extent to which you agree or disagree with the statement regarding the main character of the story.

1	2	3	4	5
Not similar at all				Very Similar
1. While reading this story, I felt as if I was part of the action.				_____
2. While reading this story, I forgot myself and was fully absorbed.				_____
3. I was able to understand the events in the story in a manner similar to That in which character X understood them.				_____
4. I think I have a good understanding of character X.				_____
5. I tend to understand the reasons why character X does what he or she does.				_____
6. While reading the story I could feel the emotions character X portrayed.				_____
7. While reading the story, I felt I could really get inside character X's head				_____
8. At key moments in the story, I felt I knew exactly what character X was going through.				_____
9. While reading the story, I wanted character X to succeed in achieving his or her goals.				_____
10. When character X succeeded I felt joy, but when he or she failed, I was sad.				_____
11. I wish I could be more like character X.				_____
12. I'd like to do the kinds of things that character X does in the story.				_____
13. Character X is the sort of person I want to be like myself.				_____
14. I found character X to be interesting.				_____
15. I'd be interested in reading more stories about character X.				_____
16. I'd be interested in seeing a television episode based off of character X				_____
17. Character X and I are alike.				_____
18. I might be interested in buying things that Character X likes.				_____

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Not similar at all</b>				<b>Very Similar</b>

**1. Now think about the attributes you possess.** How similar are the attributes you actually possess to the attributes of the character in the story you just read?\_\_\_\_\_

**2. Now think about the attributes you would like ideally to possess.** Please tell me how similar these attributes you would like ideally to have to the attributes of the character in the story you just read. \_\_\_\_\_

3. Please write in the space below the ways in which you are actually similar to the character. Examples can include adjectives or categories of groups to which you both belong.


4. Please write in the space below which qualities or attributes this character possesses that you may like to have as well.


### Background Questionnaire

These questions are intended for reporting general information about our entire sample of participants and will not be used to identify you as an individual for any analyses or results.

1. Please indicate your gender:        Male                      Female
2. Please indicate your age: \_\_\_\_\_ years
3. Are you of Latino/Hispanic/Spanish origin? \_\_\_\_\_
4. Please mark which race(s) you most closely identify with:  
      \_\_\_\_\_ White  
      \_\_\_\_\_ Black or African American  
      \_\_\_\_\_ Asian American/Pacific Islander  
      \_\_\_\_\_ American Indian/Alaskan Native  
      \_\_\_\_\_ Other



**APPENDIX C:**  
**Correlation Matrix for the Six Factors**

	Wishful Identification	Identification	Interest	Similarity	Transportation	Wish for Achievement
Wishful Identification	1.00	<b>0.30</b>	<b>0.48</b>	<b>0.49</b>	<b>0.31</b>	<b>0.22</b>
Identification	<b>0.30</b>	1.00	<b>0.44</b>	<b>0.53</b>	<b>0.49</b>	<b>0.29</b>
Interest	<b>0.48</b>	<b>0.44</b>	1.00	<b>0.48</b>	<b>0.46</b>	0.18
Similarity	<b>0.49</b>	<b>0.53</b>	<b>0.48</b>	1.00	<b>0.32</b>	<b>0.24</b>
Transportation	<b>0.31</b>	<b>0.49</b>	<b>0.46</b>	<b>0.32</b>	1.00	0.11
Wish for Achievement	<b>0.22</b>	<b>0.29</b>	0.18	<b>0.24</b>	0.11	1.00

Note that this correlation was run using scores from these factors when extraversion matched. Similar correlations were obtained with the non-match condition.  
Significant correlations are in bold,  $p < .05$

## APPENDIX D:

### Table of Means for Results Chapter

	<b>Affect Condition</b>	<b>Race Match</b>	Wishful Identification Mean	Wishful Identification S.D	Identification Mean	Identification S.D.	Interest Means	Interest S.D.
<b>Extraversion Match</b>	Neutral	No Match	2.83	0.76	3.51	0.73	2.51	1.07
		Match	2.68	0.80	3.51	0.75	2.81	1.01
		Total	2.74	0.78	3.51	0.73	2.68	1.03
	Positive Affect	No Match	2.99	0.90	3.56	0.72	2.47	0.82
		Match	2.93	0.87	3.66	0.72	2.60	0.89
		Total	2.95	0.87	3.62	0.72	2.55	0.86
	Total	No Match	2.91	0.82	3.53	0.72	2.49	0.94
		Match	2.81	0.84	3.59	0.73	2.71	0.95
		Total	2.85	0.83	3.57	0.72	2.62	0.95
<b>Extraversion No Match</b>	Neutral	No Match	2.93	1.02	3.17	0.79	2.51	0.88
		Match	2.79	0.90	3.60	0.69	2.32	0.85
		Total	2.85	0.94	3.41	0.76	2.40	0.86
	Positive Affect	No Match	2.79	0.92	3.64	0.82	2.18	0.73
		Match	2.68	0.70	3.42	0.78	2.54	0.95
		Total	2.72	0.78	3.50	0.79	2.40	0.88
	Total	No Match	2.86	0.96	3.39	0.83	2.35	0.82
		Match	2.73	0.79	3.51	0.73	2.44	0.90
		Total	2.79	0.86	3.46	0.77	2.40	0.87
<b>Gender Match</b>	Neutral	No Match	3.17	0.87	3.43	0.63	2.40	0.99
		Match	2.54	0.85	3.76	0.67	2.63	1.06
		Total	2.80	0.90	3.62	0.67	2.53	1.03
	Positive Affect	No Match	2.91	0.98	3.76	0.78	2.51	0.88
		Match	2.64	0.75	3.54	0.74	2.55	0.95
		Total	2.75	0.85	3.63	0.76	2.53	0.91
	Total	No Match	3.03	0.92	3.59	0.72	2.46	0.93
		Match	2.59	0.79	3.64	0.71	2.59	0.99
		Total	2.77	0.87	3.62	0.71	2.53	0.96
<b>Gender No Match</b>	Neutral	No Match	2.60	0.85	3.24	0.90	2.61	0.96
		Match	3.05	0.85	3.38	0.70	2.64	0.96
		Total	2.86	0.87	3.32	0.79	2.63	0.95
	Positive Affect	No Match	2.92	0.86	3.55	0.72	2.30	0.74
		Match	2.93	0.81	3.50	0.77	2.56	0.88
		Total	2.92	0.82	3.52	0.74	2.45	0.82
	Total	No Match	2.76	0.86	3.39	0.82	2.46	0.86
		Match	2.99	0.82	3.44	0.73	2.60	0.91
		Total	2.89	0.84	3.42	0.77	2.54	0.89

Table of Means for Results Chapter (Continued)

	<u>Affect</u> <u>Condition</u>	<u>Race</u> <u>Match</u>	<u>Similarity</u> <u>Means</u>	<u>Similarity</u> <u>S.D.</u>	<u>Transportation</u> <u>Means</u>	<u>Transportation</u> <u>S.D.</u>	<u>Wish</u> <u>Achieve</u> <u>Means</u>	<u>Wish</u> <u>Achieve</u> <u>S.D.</u>
<b>Extraversion Match</b>	Neutral	No Match	3.35	0.55	2.79	0.92	3.63	0.90
		Match	3.33	0.77	2.54	0.95	3.64	0.91
		Total	3.34	0.68	2.65	0.93	3.64	0.89
	Positive Affect	No Match	3.33	0.78	2.85	0.88	3.53	1.01
		Match	3.69	0.74	2.85	0.94	3.41	1.01
		Total	3.55	0.77	2.85	0.91	3.45	1.00
	Total	No Match	3.34	0.66	2.82	0.89	3.58	0.94
		Match	3.52	0.77	2.70	0.95	3.52	0.96
		Total	3.45	0.73	2.75	0.92	3.55	0.95
<b>Extraversion No Match</b>	Neutral	No Match	3.17	0.69	2.50	0.99	3.68	0.82
		Match	3.28	0.63	2.70	0.82	3.32	1.03
		Total	3.23	0.65	2.61	0.89	3.48	0.95
	Positive Affect	No Match	3.27	0.91	2.91	0.81	3.53	1.33
		Match	3.27	0.82	2.85	0.97	3.30	0.78
		Total	3.27	0.85	2.88	0.90	3.39	1.02
	Total	No Match	3.22	0.80	2.69	0.92	3.61	1.08
		Match	3.27	0.73	2.78	0.89	3.31	0.90
		Total	3.25	0.75	2.74	0.90	3.43	0.98
<b>Gender Match</b>	Neutral	No Match	3.20	0.64	2.66	0.90	3.74	0.81
		Match	3.32	0.75	2.77	0.85	3.35	1.02
		Total	3.27	0.70	2.72	0.86	3.51	0.94
	Positive Affect	No Match	3.33	0.83	3.11	0.98	3.74	1.15
		Match	3.42	0.76	2.84	0.91	3.18	0.86
		Total	3.38	0.78	2.95	0.94	3.40	1.01
	Total	No Match	3.27	0.74	2.88	0.95	3.74	0.98
		Match	3.37	0.75	2.81	0.88	3.26	0.94
		Total	3.33	0.74	2.84	0.91	3.46	0.98
<b>Gender No Match</b>	Neutral	No Match	3.31	0.62	2.63	1.03	3.58	0.90
		Match	3.35	0.66	2.56	0.93	3.62	0.98
		Total	3.33	0.63	2.59	0.96	3.60	0.94
	Positive Affect	No Match	3.39	0.85	3.00	0.94	3.47	1.12
		Match	3.51	0.84	2.84	0.96	3.46	0.92
		Total	3.46	0.84	2.90	0.95	3.47	1.00
	Total	No Match	3.35	0.74	2.82	0.99	3.53	1.01
		Match	3.43	0.76	2.70	0.95	3.54	0.95
		Total	3.40	0.74	2.75	0.96	3.53	0.97

Table of Means for Results Chapter (Continued)

	Affect Condition	Race Match	WTP Means	WTP S.D.	Actual Self String Means	Actual Self String S.D	Ideal Self String Means	Ideal Self String S.D.
Extraversion Match	Neutral	No Match	2.47	1.02	119.82	72.24	73.20	35.12
		Match	2.24	0.78	132.13	53.60	87.24	50.22
		Total	2.34	0.89	127.02	61.46	80.66	43.69
	Positive Affect	No Match	2.00	0.87	124.47	58.66	97.44	66.20
		Match	2.81	0.83	134.74	70.90	80.64	57.26
		Total	2.50	0.93	130.77	65.92	87.71	60.89
	Total	No Match	2.25	0.97	122.15	64.84	85.71	54.02
		Match	2.54	0.85	133.51	62.75	83.51	53.71
		Total	2.42	0.91	128.96	63.46	84.49	53.47
Extraversion No Match	Neutral	No Match	2.21	0.92	91.94	36.83	76.40	36.71
		Match	2.24	0.88	96.25	44.99	98.53	49.29
		Total	2.23	0.89	94.46	41.37	88.16	44.59
	Positive Affect	No Match	2.06	0.90	108.94	50.15	77.56	41.01
		Match	2.33	0.92	129.48	65.90	87.23	70.20
		Total	2.23	0.91	121.55	60.53	83.16	59.18
	Total	No Match	2.14	0.90	100.44	44.18	77.00	38.34
		Match	2.29	0.89	113.84	58.91	92.15	61.47
		Total	2.23	0.89	108.48	53.63	85.44	52.70
Gender Match	Neutral	No Match	2.42	0.96	115.12	70.88	90.07	38.46
		Match	2.35	0.89	120.28	46.33	82.11	51.25
		Total	2.38	0.91	118.19	56.78	85.73	45.37
	Positive Affect	No Match	2.11	0.99	113.84	51.77	90.72	76.66
		Match	2.50	0.92	120.57	67.20	80.05	52.88
		Total	2.34	0.96	117.85	60.92	84.85	64.00
	Total	No Match	2.26	0.98	114.44	60.63	90.42	61.39
		Match	2.43	0.90	120.43	57.76	80.98	51.50
		Total	2.36	0.93	118.01	58.67	85.25	55.98
Gender No Match	Neutral	No Match	2.26	0.99	96.65	42.21	59.53	24.65
		Match	2.23	0.82	110.84	57.18	96.72	49.17
		Total	2.24	0.88	105.10	51.57	79.82	43.63
	Positive Affect	No Match	1.95	0.85	120.42	56.85	96.00	53.06
		Match	2.61	0.88	138.32	69.04	87.82	73.49
		Total	2.34	0.92	131.09	64.35	91.50	64.44
	Total	No Match	2.11	0.92	109.19	51.20	79.42	45.84
		Match	2.43	0.86	125.36	64.62	91.83	63.10
		Total	2.29	0.90	118.82	59.78	86.22	55.94

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